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CARCINOMA OF THE INTESTINAL TRACT.

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THE distribution of carcinoma in the intestinal tract has the greatest diagnostic and surgical interest. In the abdomen there are practically two locations of this disease: one at the pylorus, involving the biliary and pancreatic glands; and the other in the colon, particularly in its sigmoid portion. In Zemann's collection from 21,624 autopsies there were 1,744 carcinomas, 912 of which were in the intestinal tract, 37 in the tongue, 34 in the pharynx, 136 in the esophagus, 540 in the stomach, 3 in the duodenum, 6 in the ileum, and 144 in the lower bowel, distributed as follows: 12 in the cecum, 1 in the appendix, 32 in the colon, 30 in the sigmoid region, and 81 in the rectum.

Carcinoma of the intestinal tract is generally single and solitary. Only rarely do multiple carcinomas appear. Kuttner, however, in one case observed 155 separate foci in the small intestine. In some cases of carcinoma in the upper portion of the intestinal tract multiple carcinomas subsequently appear in the intestine and in the general peritoneal cavity.

If now we take the frequency of abdominal carcinoma alone from all the

available statistics and form a table, we have the following (see next page):

The natural tendency of a carcinoma beginning in the mucosa is to attach itself firmly to the muscularis, and thus produce an annular constriction of the gut. This constriction produces symptoms of the greatest diagnostic value, and in proportion as the stricture is rapid and complete, the hope of an early diagnosis and a favorable result from treatment is increased. The tumor spreads over the mucosa, infiltrates the muscularis, and obstructs peristalsis. Early ulceration takes place, with the discharge of blood and the opening of an area of pyogenic infection. Thus two new symptoms are added to those essential to the diagnosis of the disease. The recognition of blood in the stool is more likely the nearer the carcinoma is to the anus. The symptoms of infection depend upon the extension of the infection from the ulcerated mucosa through the lymph channels to the peritoneal cavity, and the onset of a localized peritonitis. Only occasionally does the ulcerative process involve the muscularis and through peristaltic movements terminate in perforation into an adjoining intestine, the

stomach, urinary bladder, or in the general peritoneal cavity. This event sometimes results in great improvement in the symptoms when an anastomosis is formed; or on the other hand, as a result of perforation, the end comes in a general peritonitis, which is sometimes the very first symptom of the disease.

The number of secondary carcinomas of the intestinal tract is unmentionably small, and this condition plays a very trifling part in diagnosis and surgical treatment. In a few instances carcinoma of the upper abdominal region is widely disseminated below, and pelvic carcinoma sometimes spreads to the adjoining intestines. Rarely there is more than one apparently primary focus in the intestine.

	Autopsies.	Carcinomas.	Stomach.	Duodenum.	Jejunum.	Ileum.	Appendix.	Cecum.	Colon.	Sigmoid.	Rectum.
Zeman.....	21624	1744	510	3	0	6	1	12	32	80	81
							Total, 75				
Maydl.....	20180	1460	a	2	0	4	1	9	23	13	48
							Total, 46				
Nothnagel.	21358	2125	a	5	0	6	1	14	36	40	114
							*Total, 118				
Heimann...	a	20544	4288	a	6	20	a	a	a	49	1204
							*Total, 224				
Totals.....		25873	4828	10	0	36	8	35	91	132	
							*Total, 463				

a—not available.

* Totals are including material not in this table.

Men and women suffer of intestinal carcinoma with equal frequency, but carcinoma of the anus and rectum is much more common among men.

The mucous membrane is usually the primary site of the disease, and this is probably the reason that most cases of

intestinal carcinoma are adenocarcinomas.

The most unfavorable carcinomas for diagnosis and treatment are those which begin in the mucosa and lie dormant there, but produce mesenteric carcinomas early in the progress of the disease. Equally unfavorable for diagnosis are those that destroy the mucosa without producing constriction and symptoms of obstruction. Such tumors may continue for months or years, until by obstructing the portal circulation, or the arterial or venous circulation of the intestine, the gut suddenly undergoes an extensive anemic or congestion necrosis. A case of this kind presented symptoms which led to a diagnosis of appendicitis with obstruction, and on opening the abdomen more than three feet of the ileum, reaching from the ileocecal valve onward, was completely gangrenous and black, and the mesentery contained a carcinoma which involved and obstructed all of the lower intestinal branch of the superior mesenteric artery and the accompanying vein.

The clinical picture which is presented by cases of carcinoma of the colon is rather vague and indistinct. The patient is in middle or advanced life; he has perhaps been the victim of some intestinal disorder which gave symptoms of ulceration of the bowel or dysentery, usually early in life. For a few months or a year he has been troubled with constipation, flatulency, and a vague and indistinct abdominal distress, somewhat similar to that which follows the use of calomel on a full stomach. During a more recent period of a few weeks he has lost strength, assumed a yellowish or cachectic color, and has lost from five to twenty pounds in weight. He usually thinks his



Diabetic coma is especially likely to occur in the young; avoid constipation, fatigue, exhaustion and cold.—Nair.

Deep respiration, rapid pulse and abdominal pains are early premonitory symptoms of coma; cyanosis usually absent.—Nair.

loss of appetite and dyspepsia sufficient to account for the loss of weight.

The muscles of his arms and legs are inexplicably shrunken and flabby. He has noticed a distinct loss in sexual power and interest in life. On two or three occasions there has been a severe griping, abdominal pain coming on five or six hours after a meal, and attended by a peculiar sensation of fulness in the abdomen, and even by a feeling of movement in the external abdominal wall. If the patient is examined at such time, a distinct rising and falling of the abdominal wall can be seen and felt, which terminates at the location of the obstruction in the gut. After a time these abdominal movements become almost daily occurrences, and even persist the day and night through, with tympanites, abdominal distress, dyspnea, and at last vomiting and relative relief. After a protracted attack of vomiting the obstruction apparently gives way; the contents of the colon escape, with much flatulency and sometimes with a show of blood; the abdominal walls become flaccid, and if an examination is made a very distinct and movable tumor, somewhat resembling a kidney in size and motility, can be felt through the abdominal wall.

The tumor is tender, and, later, infection of the eroded mucosa begins and the tumor is surrounded by an area of peritonitis. If this tumor be found in the region of the ileocecal valve, it may give rise to a suspicion of appendicitis. This is especially the case after ulceration and infection have taken place, and the symptoms of a localized peritonitis, with a high temperature, a rapid pulse, and a hyperleucocytosis, are present. In a few instances the patient complains

only of the fetus-like movements within the abdomen, and if the patient is a woman she is sometimes deceived into thinking that she is pregnant, or the movements are followed by the gurgling and whistling of gas, which is so conspicuous as to prevent the patient from enjoying the ordinary associations of life. The vomiting of greenish fluid, and the complaint of the patient that there is a fecal taste in the mouth and in the vomited matter, ought to arouse the suspicion of carcinoma. The appearance of blood and pus in the discharges is not uncommon. The pus arises from the pericecal peritonitis, and breaks through the ulcerated gut and is discharged.

In another instance, an apparently healthy woman is suddenly seized with the symptoms of obstruction. For the first time a vaginal examination is made, and a large fibroid tumor of the uterus discovered, which is so situated as to reasonably explain the origin of the obstruction. Palliative measures are used for a few hours, and when the abdomen is opened the actual cause of obstruction is discovered in the complete obliteration of the sigmoid colon by carcinoma.

When the carcinoma is medullary, it fails to give rise to symptoms of obstruction, but it early gives rise to melena, and the presence of the growth should be suspected in spite of the frequency with which old people are troubled with bleeding piles. The extension of an intestinal carcinoma is usually very slow; it proceeds by the lymph glands, toward the mesenteric lymph glands, and in a few instances the branches of the portal vein are eroded and penetrated by the carcinoma and particles of the tumor are carried to the liver. The great tardiness of lymphatic

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In diabetic coma, in early stages great benefit may result from brisk cathartics and alkaline enemata; alkalies internally always.

In a paper in the *Journal of the American Medical Association*, Livingston praises the action of ergot in functional neuroses.

extension of carcinoma of the rectum and sigmoid colon has been repeatedly observed, but there are histologic forms of carcinoma of the colon and rectum which are extremely rapid in their metastasis, and early result in carcinoma of the most distant organs of the body.

Most of the patients who suffer from carcinoma of the intestine are in advanced life and unwillingly present themselves to the surgeon for operative treatment. Their blood-vessels have already undergone sclerotic changes, and the kidneys are apt to show marked symptoms of disease. Very few men are free from prostatic trouble or from the complications which have resulted from their occupations or the excessive use of stimulants. Occasionally the diagnosis is masked by the presence of fluid in the general peritoneal cavity, and it is always confused by the flatulency and constipation which are apt to be present on the first examination.

The indications for operating upon a carcinoma of the intestine are as absolute as the diagnosis. Every case of intestinal carcinoma in which a reasonable diagnosis can be made should be at once operated upon and the gut resected. The fact that the patient is suffering from diabetes or a chronic nephritis, the fact that the patient has a valvular disease of the heart, the fact that he has a general arteriosclerosis, ought not to weigh against the decision. If any operative procedure promises relief, this fact can be discovered only after an abdominal section has been made. The localities in which the carcinoma appears most frequently are for the most part the locations in which operations are most difficult. Cecal carcinomas, and carcinomas of the colon offer the greatest hope

of a favorable result. Carcinomas of the pylorus, the duodenum, and the sigmoid flexure present anatomic difficulties to the operator which greatly diminish the prospects of a favorable issue. It is a pathologic fact of great surgical interest that the annular carcinomas of the intestine show little tendency to invade the adjoining lymph tissues, and when an excision has once been made the hope of a permanent recovery is very great.

The treatment of carcinoma of the colon is surgical from the start. As soon as the diagnosis has been made, it should be confirmed by an exploratory laparotomy, and one of three methods of treatment, depending upon the condition and surroundings of the patient, instituted at once.

If the patient has been neglected until the obstruction is complete and the abdomen is distended and the colon stretched to the bounds of its strength, it is necessary to open the distended gut not more than eight to ten inches from the carcinoma, and attach it to the abdominal wall as a temporary artificial anus. After this procedure the tympanites quickly disappears, and if the operation has been done under a local anesthesia or the administration of gas, the appetite returns and the health and strength of the patient make a rapid improvement. At a subsequent operation more radical measures can be adopted. By this means the danger of peritonitis is greatly diminished. The distended intestine and the foul-smelling effusion which is always found in the peritoneal cavity in these cases is a distinct contra-indication to any extensive operation.

The second surgical procedure, which is practiced when the oral side of the gut is not too greatly distended, consists in

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Livingston thinks ergot is the ideal contractor of unstriped muscular fiber; it contracts blood vessels and equalizes pressure.

Ergot is employed in all kinds of pain of nervous origin—in headache, neuralgia, neuritis, pneumonia, etc.—Livingston.

the formation of an anastomosis between the anal and the oral portions of the gut and the exclusion of the irremovable tumor. This is done in the ordinary way so that the peristaltic waves are carried directly from the oral to the anal portion. After this procedure has been completed, should the surgeon find the condition of the patient favorable, and the tumor accessible, he may then complete the operation by the removal of the tumor. This procedure is best adapted to carcinomas of the cecum. Carcinomas of the transverse colon or of the hepatic or splenic flexures, or those rare tumors of the ascending or descending colon, submit themselves to resection and end to end anastomosis.

On account of the sessile and immovable nature of most carcinomas of the cecum, an extensive incision is necessary through the abdominal wall in order to approach the tumor and make the anastomosis. If the diagnosis was accurately made before the operation, an incision on the outer border of the rectus will be found most favorable. The ileocecal fossa and the pelvic fossa should be filled with a large laparotomy sponge carried over the edge of the wound. The ileum, which is likely to be distended, should then be brought up and its contents stripped back and a clamp applied at a point favorable to its circulation. The ileum is now thrown in a loop so that its anal portion is turned upward and brought in contact with the median side of the colon three or four inches above the tumor. The mesenteric edges of the ileum and colon are now firmly sutured for a distance of an inch and a half, and the ends of the suture brought for a quarter of an inch at both ends in a transverse direction. An incision is

then made in the gut, and the suture closed, thus completing the anastomosis. A few additional stitches may be placed so as to hold the loop of ileum close to the colon and prevent any strain upon the suture. If the patient has stood this portion of the operation well, the excision of the carcinoma may be undertaken. If the operator decided, in the beginning, to make an excision of the tumor, a simpler, a more direct, and better method is the implantation of the ileum into the side of the colon.

The third surgical procedure is the ideal one. It consists in the removal of the tumor and the establishment of the integrity of the intestinal tract. The operator presumes that the tumor is movable, and it is approached by the most favorable incision. The patient is in such a condition as to stand the operation, and the intestinal tract is so empty, especially the oral portion of the gut, as to permit of resection. If the tumor is in the ileocecal region, the ileocecal fossa and the pelvic fossa are protected by sponges, the oral portion of the gut is emptied and clamped, a favorable point in the ileum is selected, the gut is cut off, and the mesentery is dissected out in such a way as to avoid injuring the lowest branch of the superior mesenteric artery, which supplies the lower twelve inches of the ileum. The colon is then clamped and amputated, together with the appendix, the ileocecal valve, and the contained tumor, and all the lymph tissues in the iliac fossa. At this point it may be found necessary to detect and follow the course of, the right ureter which is in close proximity to the mesentery of the appendix, colon, and first portion of the ileum especially after they

The action of ergot in insomnia, and especially the insomnia of drug and liquor habits, is almost ideal.—Livingston.

According to Lambert, with a large Bellevue hospital experience, ergot is remarkably effective in delirium tremens.—J. A. M. A.

have been modified by the infiltrating tumor.

If the blood-vessels are picked up as the dissection is made and the larger ones ligated the hemorrhage is trifling. The amputated colon should then be closed and brought down in such a manner, if too much has not been sacrificed, as to cover the denuded portion of the dorsal pelvic wall. The amputated end of the ileum is then brought against the median side of one of the haustra of the colon, an incision is made in this haustra and the ileum is attached in the same manner as that described for circular resection under Connell's method. The operation is then completed by attaching very carefully the mesentery of the ileum to the median side of the amputated colon so that no hernia can escape between the colon and the ileum and no raw surfaces show themselves after the completion of the resection. No vigorous search for enlarged mesenteric lymph glands should be made in the mesentery of the ileum without a full recognition and protection of the lower branches of the superior mesenteric artery. In making the amputations great care should be exercised in selecting the spot so that the end of the gut will have an abundant arterial blood supply.

The excellent results which follow excision are illustrated by the following case diagnosticated by Dr. Arthur Edwards and operated upon by Dr. Weller Van Hook:

Mrs. H., the wife of a physician and the mother of one child, had been suffering for some weeks with abdominal distress and occasionally abdominal pain. For a considerable time she had had digestive disturbances, and it became increasingly difficult to secure passages of

the bowels. The feces had latterly consisted of small masses. The patient was occasionally distressed with tormina, and considerable emaciation had occurred. The appetite was almost entirely gone, and she complained of a fecal taste in the mouth. Dr. Arthur Edwards had noticed a tumefaction in the epigastric region, and had diagnosticated carcinoma of the transverse colon. Dr. Weller Van Hook made an excision of the tumor with silk sutures, and the abdominal wound was closed without drainage. This operation was performed in mid-summer, and the extremely hot weather was so debilitating to the patient that the temperature of the room was lowered by placing blocks of ice about. Her recovery was slow but uninterrupted, and her health during the succeeding eight years has been excellent.

The tumor was a cylindrical-celled carconima, which produced an unusually early constriction of the intestine.

Carcinoma of the vermiform appendix itself is probably not so rare a disease as the statistics would indicate. It was first recognized by Rokitansky, who reported four cases of primary carcinoma of the appendix in 1867. The literature shows other cases reported previously reaching back as far as 1838. Elting and Moschcowitz made collections and studies which are interesting and suggestive. They give a résumé of a large number of cases and append a valuable bibliography.

Carcinoma of the appendix does not play any considerable clinical role. The disease is one which appears rather early in life, and may be observed at any age. It shows a small tendency to metastasis and a slow progress in the appendix itself. The symptoms of carcinoma are not diagnostic, and they resemble the symptoms of chronic appendicitis, sometimes with and sometimes without acute

Livingston dissolves the solid extract of ergot and uses it hypodermically. Why not use ergotin?

Fisher, in formaldehyde poisoning, used large quantities of lime water with success. Ammonia the usual antidote.—*Med. Council.*

exacerbation. There seems to be some relation between chronic appendicitis, especially that of the obliterating type, and carcinoma. The fact that carcinoma is apt to appear in the chronically-inflamed appendix does not detract from the indications for appendectomy, but rather intensifies them. Up to the present time this variety of carcinoma has

appeared almost three times as often in the female as in the male.

The pathologic findings of carcinoma of the appendix are not macroscopically very obvious. Most of the cases which have been observed were discovered after the removal of the appendix by close pathologic and microscopic study.

Chicago, Illinois.



MODERN IDEAS CONCERNING MALARIA.

(Conclusion)

BY W. F. WAUGH, M. D.

AFTER death in an acute attack the spleen is found to be enlarged, dark and soft, even pultaceous; the liver ditto, the encephalic vessels engorged, the gray matter leaden, the marrow dark and congested, and this dark congestion may affect the lungs, kidneys and bowels.

Pigmentation is pathognomonic of malaria, and malarial blood always shows it; also it is found in the endothelial cells, often in leucocytes, forming thrombi that occlude vessels, and in the spleen and marrow alone the pigment is found in the cells of the parenchyma. Intravascular black pigment is found only in malaria.

This pigment is insoluble in strong acids, is altered by potash, and quickly soluble in ammonium sulphide. That, in the leucocytes, is obtained from the parasites. In the spleen a phagocyte may contain at the same time pigment, parasites, broken hemoglobin and even a number of entire red cells, mostly containing parasites. One phagocyte may even contain a second, and that a third.



The pigment is most abundant in the splenic vein; in leucocytes and in large white cells. Some of these are also found in the liver, but rarely beyond it. More parasites are also found in the spleen than elsewhere. After the malaria has existed a time the pigment can also be found in the vessel walls and perivascular lymph spaces, whence it goes to the lymphatic glands for final disposal. Those in the hilum of the liver are markedly pigmented in chronic cases.

These facts show that the destruction of red cells in the blood is but small as compared with what is going on in the spleen, marrow, liver, and elsewhere. The contest in the blood is only skirmishing.

The black pigment is pathognomonic, but of little importance pathologically. Kelsch and Kiener describe a pigment ochre also, in the protoplasm of parenchymatous cells generally. It is also found in other diseases, with great and rapid destruction of red cells. It is insoluble in acids, in alkalies and in alcohol. It gives the reaction for iron only

Gaucher recommends boric acid internally in the treatment of boils. Calcium sulphide discounts this—sure.

Woldert estimates the cost of malarial disease in Texas at five and perhaps ten million dollars! Malaria is a live problem.

when long deposited in the tissues. To a certain point the liver can convert the hemoglobin into bile pigment, the bile being increased thereby; hence the bilious symptoms so common in remittents. The yellow skin is probably tinted with free hemoglobin and not with bile. When the liver has reached the limit of its function of pigment conversion the surplus is stored in the parenchymatous cells. This is the pigment ochre. If the liberation of hemoglobin be too great for this disposal we have hemoglobinuria.

This enormous supply of free hemoglobin may be partly derived from the red cells which, as we have seen, lose a part of their stock. Manson suggests that at the chill there is a sudden liberation, with the parasites emerging from the red cells, of a hemoglobin-solvent agent, which may have served the purpose of a digestant to the parasite during its intracellular life.

The red cells are larger than usual, and some megalocytes are present, also small dark embryonic forms, and some of irregular outline and indisposed to form rouleaux. In one case not a sound corpuscle could be found.

In mild attacks the leucocytes are decreased in number until the end of the paroxysm; then rises a little till two hours after the chill. The large mononuclear cells are greatly increased. In malignant forms the conditions are not clear, but in some cases of pernicious attacks there is an increase in the surface blood which may even be enormous (Billings). The hematoblasts decline during the paroxysm and rise above normal during the intervals (Hayem).

What causes the fever and its periodic recurrences? The cycles of the parasites, quotidian, tertian and quartan,

correspond with the phases of the febrile paroxysms. The attack of fever coincides with the escape of the parasites from the red cells. Some toxin escapes into the blood to which the phenomena are to be attributed. The periodic liberation of this toxin accounts for the periodicity of the febrile attacks, and its elimination puts a stop to them.

But why should the entire swarm of parasites develop and escape from their cells at about the same moment? Manson attributes this to the quotidian periodicity in the rhythm of the physiologic processes of the human body. All animals, but man, are immune against malaria; some men are immune; others acquire some immunity by residence in malarial districts; the first attack of a newcomer is apt to be remittent or continuous, but as the resistant forces of the body increase, they are able to protect the man during all the day, except the time when the attack occurs. Parasites maturing earlier or later than this unprotected period perish, while those maturing at this time survive.

This hypothesis does not commend itself to the writer. Judging from the effects of heat in developing all forms of malaria, and the coincidence of the malignant forms with torrid climes and seasons, it does not seem so far-fetched to attribute the occurrence of the chills at about 11 a. m. to the development of the parasite at that hour by the heat that has been then supplied by the sun. It is a tradition of malarial places that sitting in the sun will develop the ague.

Spontaneous recovery proves the existence of a protective power in the human body. Such cases are not unusual.

Malarial Cachexia.—This may follow severe or long-continued acute attacks



According to Thomas consumption entails an annual economic loss in Illinois of about \$36,000,000. And the State does nothing.

It is estimated that 1,000,000 people die from consumption annually in Europe and 200,000 in the United States.

or be developed by long exposure to its cause. The symptoms are: anemia, an earthy hue of the skin, yellowish eyes, enlarged spleen, and in the early stages enlarged liver. Irregular febrile attacks are frequent, after fatigue, exposure or other causes of lowered vitality. Fever is not an essential; in fact, one case coming under the writer's notice was recognized as malarial by its persistent subnormal temperature with periodic crises. Many residents of malarial regions have enlarged spleens—big bellies and thin shanks, dull and depressed aspect, earthy complexion, rough, unhealthy skin, dark and with patches of pigmentation, on tongue or palate. The parasites have been found in the blood of a four-months'-old babe, and it is asserted that infants are born malarious. But Big-nami failed to detect parasites or pigment in the fetus of a woman who dies of a pernicious attack. Children early affected are apt to be poorly developed, stunted, and as abortion and sterility are usual results the population is repressed.

Many functional ailments appear in these cachectics, which tend to periodic recurrence; such as neuralgias, gastralgias, gastric, intestinal and other crises, headaches, palpitation, hiccup, sneezing, and various eruptions. Besides their periodicity these affections are controllable by quinine, although such maladies are not usually amenable to this remedy. Hemorrhages of all varieties are common in some cases, and trifling operations may then prove fatal. Gastric and intestinal ails are the rule; dyspepsia, morning diarrhea; low forms of pneumonia carry them off.

If there is only anemia with portal congestion the patient may recover

promptly; if there is organic abdominal disease the final ending is in death.

The pathology is that of the acute forms. The splenic growth may be enormous, the connective hyperplastic, the pulp soft and stained with black pigment. This "ague cake" is diagnostic of malaria, and its frequency tells of the salubrity of the district. The tumor is easily ruptured by a blow. The liver may be permanently enlarged by febrile attacks, not by afebrile conditions. Cirrhosis results in time. When the yellow pigment responds to the tests for iron it is known as siderosis. There is no tendency to suppuration.

Similar changes take place in the kidneys; the cardiac muscle degenerates and its walls dilate; dysentery, diarrhea, low pneumonias tending to abscess, empyema, phagedena, noma, pernicious fever, may occur; splenic leukemia is a sometimes remote effect.

The invasion of the parasites is now established to be through the mosquito. All agencies tending to favor the breeding, infection and access of these increases the liability to malarial fevers. Manson claims that the evidence of an invasion may not appear for months or years after the bite. In colder latitudes the connection of malaria with swamps is much closer than in the tropics; it is milder, active only in late summer and early fall. Flats at the base of mountains, waterlogged; deltas of large rivers; the pools along dried-up river beds; uncultivated fields and tracts just deforested, are often malarial. But elevated, arid plains are sometimes intensely malarial. It is a disease of the country rather than the city. Occurring on ships at sea, the mosquito may have been an unauthorized passenger. Many peculi-



Consumption is communicated chiefly by the dried sputa of consumptives; the well are at the mercy of the sick.

Every physician should raise his voice and use his pen against the habit of indiscriminate expectoration; talk it over with patients.

arities hitherto inexplicable are resolved by the mosquito theory.

A sustained average temperature above 60° F. is necessary. Altitude has no direct effect. Water is essential—best in small pools with no fish, as they eat the larvæ. Decomposing organic matter is not essential. A high level of the subsoil water favors mosquitoes and malaria. Hence comes the danger from subsiding floods, or raising the water level by engineering works. The overflow of swamps stops the fever—washes out the mosquito broods. The mosquito seeks shelter from even slight winds, and does not rise more than a few feet from the ground; transport by winds is hardly possible.

A mile between a vessel and land secures the crew. Italian peasants secure immunity by passing the nights on platforms raised on poles a few yards. Trees protect dwellings from swamps behind the trees, by stopping the mosquitoes. The infection is most active at night, and the mosquito works between sunset and sunrise. The unquestionable facility with which malarial infection follows disturbing the soil, by digging up streets, etc., can not be explained on the mosquito theory, and suggests that there are other methods of infection as yet untraced. But the introduction of malaria by infection of the mosquitoes from an infected visitor explains many hitherto mysterious outbreaks. Further studies of the various species of mosquito are needed.

Acclimatization. — Manson attributes much of the alleged acclimatization of residents in malarial districts to the minute care they have learned to take of themselves. Some persons are absolutely immune. The negro is less liable

than the Caucasian, while the Chinese and other dark races are less affected than the whites, but more than the negro. The whites of Southern Europe have not inherited immunity so much as they have learned how to live.

DIAGNOSIS.

The practitioner in malarial districts gets to see this malady in everything. Periodicity and a curative effect from quinine suffice, though these are uncertain. In doubtful cases the microscopic examination of the blood is infallible. The detection of the plasmodia or of melanin suffices.

Quinine is useful in intermittents and larval forms but less so in severe remitents. It requires time, also. Tertian and quartan periodicity occur only in malaria; quotidian is less conclusive. It occurs in abscess of the liver; but here the spleen is not enlarged, fever rises highest in the afternoon, perspiration is not specially post-febrile, but occurs in sleep, and dysentery almost always has preceded the abscess, in which the periodicity is quotidian, never tertian or quartan.

Yellow fever and hemoglobinuria are constantly mistaken. The former is sthenic, the latter asthenic.

The onset of yellow fever is totally unlike any but very rare cases of malaria, the urine is scanty to total suppression, and there is an irritability of the stomach far exceeding anything seen in malaria. But in some cases it seems impossible to make the diagnosis, except by the microscopic examination of the blood. But does this exclude yellow fever? Suppose during an epidemic of the latter, persons who are malarious are seized with yellow fever?



There are anti-spitting laws in Chicago and other large cities. Where are they enforced? Not in Chicago.

Remember that flies may carry the germs from sputum and deposit it on food. Exclude the flies and care for sputa.

YELLOW FEVER.

Sthenic.
Violent headache.
Injected eyes.
Mahogany face.

Albuminuria marked and increasing.
Hematuria rarely.
Spleen and liver little enlarged.
Epigastric tenderness and burning.
Vomit white, later black.
Jaundice late if at all.
Endemic in limited areas.
Pulse slow as to fever.

MALARIA.

Asthenic.
Not so prominent.
Eyes yellow.
Livid, cyanotic or yellow.
Slight, if any.
True hemoglobinuria.
Enlarged early and greatly.
Not marked.

Vomit bilious, rarely blood.
Jaundice early.
Wide and known range.
Pulse weak or wiry, rapid.

Attacks newcomers. Attacks old residents.

In cerebrospinal meningitis we have the stiffness of the neck and the eruptions. Urethral fever, gallstones in the very young, renal suppuration, lymphangitis, tuberculous hectic, ulcerative endocarditis, Mediterranean fever, pernicious anemia with splenic leukemia, visceral syphilis, rapidly-growing sarcoma, hysteria, and other affections may present quotidian paroxysms resembling ague. But the spleen is not always enlarged in these, the crises are always quotidian, never tertian or quartan, quinine has no decided beneficial effect, and each has its own special symptoms; so that even without resort to blood examination it can usually be diagnosed. In doubtful cases the microscope and Widal's test are necessary to separate malaria from typhoid fever. When typhoid attacks a malarial subject there may be several well-marked chills at the beginning, the typhoid symptoms gradually becoming manifest. Pernicious malaria may so closely resemble sunstroke, apoplexy, dysentery, cholera,

puerperal fever, pneumonia, aphasia, etc., that the microscope alone will distinguish the real malady.

Five minutes suffices to secure a certain diagnosis; and with this to direct a certain therapeutics, promptness, strength and boldness in treatment will give results that will seem miraculous to the feeble therapist who timorously experiments with uncertain weapons after a tentative diagnosis.

TREATMENT.

One of the greatest advances ever made by therapeutics was the use of Peruvian bark for malarial diseases. The dose was an ounce, and this was given in liquor or wine. If the stomach could be induced to retain it, the benefit was greater than had been derived from any previous medication. But what a dose!

In time pharmacy progressed to the production of an extract, getting rid of 450 grains of useless dirt, and reducing the dose to 30 grains. To this day there be many devotees of the "ague stick" who cling to the cinchona extracts, even when deprived of quinine. The farmers of some sections carry this in their pockets and whittle off a chunk as their needs dictate. But all fetiches lose their sway and knowledge spread, and in time the medical profession suffered itself to be persuaded that there was no benefit to be derived from an indeterminate quantity of inert coloring matter and resin; and finally quinine has completely replaced the older preparations. Many attempts have been made to find a substitute, but to no purpose. The laity and the profession alike place their faith in it. There is the more reason that we should determine exactly what quinine



The only way to care for sputum is to destroy it. Patients should spit into antiseptic solutions, use pocket spittoon, burn soiled linen.

No healthy person should sleep or live in the same room with a consumptive; disinfect such rooms before use by others.

will do and what are its limitations. Too much must not be expected of even so good a servant.

Manson says that a paroxysm once begun cannot be cut short by quinine; which he advises in the sweating stage, ten grains, with five grains every six to eight hours for the next two or three days. This is almost certain to prevent the third attack of intermittent. An aperient and rest in bed are invaluable aids in cachectics and obstinate cases. When the fever has gone he gives iron and arsenic, with five to fifteen grains of quinine every five to seven days for six weeks. If the crescents are present he gives once a week a saline laxative and fifteen grains of quinine; the iron and arsenic on the other six days. Too large doses of quinine may cause permanent deafness, amblyopia, collapse and fatal syncope. Children under a year should take half a grain at a dose. If the malady resists the doses advised, the diagnosis should be revised.

As quinine has caused miscarriage, it should be given to pregnant women in minimum doses, three grains every eight hours for two days. There is more risk of miscarriage from ague than from this much quinine. The plasmodia awake to activity in the puerperal state, so that during or after labor several five-grain doses should be given.

Quinine is best taken in solution; pills and tablets are apt to pass through the bowels undissolved if the tongue is foul and digestion disordered. It would be well to substitute the hydrochlorate for the universally-employed sulphate, the former being much more soluble in water. Manson advises to give quinine to children in a tablespoonful of milk, first greasing the mouth with butter.

Quinine may be given by the rectum a few times, but it soon becomes too irritable to retain it.

In many cases it is best to inject the drug into the muscles. It is painful and may cause abscess, but the advantages outweigh these drawbacks. The acid hydrochlorate is soluble in less than its weight of water; the hydrobromate is nearly as soluble. The sulphate may be dissolved by adding half its weight of tartaric acid. The hypodermic dose is 10 to 15 grains, and in grave cases this may be given every eight hours. Cleanse the skin aseptically, use sterilized water for the solution, and insert the needle deeply into the gluteal or scapular muscles. Not only is this an economic and effective way of administering quinine, but by it cases may be cured that resist the same remedy given by the stomach. But the asepsis must be perfect—tetanus has followed injections of quinine.

In pernicious comatose remittents, where there is no time for other methods, Bacelli injects intravenously the following: Quinine hydrochlorate, one gram; sodium chloride, 0.75 gram; water, ten grams. Of this he injects five to seven grams and has reduced the mortality in these desperate cases from 1 to 6 per cent.

Warburg's tincture sometimes succeeds where quinine fails. It is a powerful sudorific. The coal tars relieve headache and fever.

How does quinine act? As it is destructive to free amebæ it may be a direct poison to the plasmodia. Some say it stimulates the phagocytes, others that it paralyzes them. In man it causes the quick disappearance of all the plasmodia except the crescents. Sometimes it



Let your patients understand that consumption in its early stages can be cured; teach the danger of neglect.

Cardinal points for successful treatment: (1) fresh air, day and night; (2) plenty of good, simple food; (3) rest while fever, then exercise,

seems to awake a latent malaria and bring on a chill—as do hydropathy, sea-bathing and some mineral waters.

In severe forms, such as bilious remittent, we cannot wait for the remission, but give fifteen grains of quinine at once. While it acts better after the bowels have been cleared out, the time is worth more than is gained by waiting for a cathartic. A full dose of calomel may be given with the quinine, and five grains of the latter every three to six hours till the fever has subsided. If bilious, the stomach should be cleared with ipecac or warm water before giving the quinine. The usual expedients are employed to quiet the stomach; but if it will not retain the quinine, clear the rectum and give thirty grains in solution by that route.

As in all other cases, hyperpyrexia demands the instant and energetic employment of cold—ice to the head, ice-water in the rectum, cold baths. Quinine should also be injected into the veins or muscles, five to fifteen grains every three hours till thirty or forty grains have been given. But the heat must be held at a safe point for four hours, till the quinine has had time to get to work. The coal tars are worse than useless (Manson). Use the cold bath whenever the axillary temperature reaches 106° F., and remove the patient when it has fallen to 102° F. in the rectum. Take temperatures every two hours, and repeat the bath if needed.

For algid and dysenteric attacks Manson advises quinine and opium; ipecac for the latter; or salines and opium. But a hypodermic of atropine is so exactly indicated in the algid crisis that it should be given at once, in dose enough to send the blood back to the skin. Eme-

tine will supply the place of ipecac and be far more likely to stay in the stomach.

Hemoglobinuria.—Koch agrees with many observers in our southern states that quinine is apt to induce this affection. It comes on even while the patient is cinchonized. In large doses quinine, being a protoplasmic poison, renders the hemoglobin unstable, and destroys the red cells. If added to the destruction by the parasites it may cause the escape of hemoglobin by the urine. Bastianelli advises quinine if hemoglobinuria occurs during a paroxysm, the parasites being found in the blood; withhold it if the parasites are not found; if given before the hemoglobinuria and no parasites are found, suspend it; if they persist, continue it.

Calomel in very large doses is a favorite with many—a teaspoonful at a dose. Cases have recovered with neither calomel nor quinine. Quennec gave chloroform in twenty-two cases, without losing one; fifteen minims every ten minutes until some chloroform intoxication is produced, which is then sustained by chloral enemias. Tannic acid, gr. 15 every two hours, for four or five doses, has succeeded when quinine failed, and especially in hemoglobinuria. Give also two doses each on the third and the sixth days. Sodium salicylate is recommended. When the anemia is profound, blood has been transfused with advantage. The most scrupulous care must be taken of persons who have had an attack of hemoglobinuria; they should go to bed at the least sign of fever, keep the skin warm, avoid drafts, and take plenty of warm drinks; if parasites are in the blood give quinine five grains by hypodermic every four hours, and a large dose of calomel. Fatigue, chilling,

Finally, do not forget the value of nuclein and the alkaloids as indicated. Use good sense and the right climate.

How did your cases of hay-fever come out this year? Let us have your reports—next year they'll help.

wetting, and all other causes of vitality depression must be avoided. Cooling off in clothes wet with perspiration is dangerous. If the urine grows scanty avoid diuretics, apply heat to the loins, give water and milk as a diet till the albumin ceases. Antipyrin and phenacetin are dangerous.

The place of arsenic is after the fever has been quelled, as a blood restorer. He has never seen benefit approaching that derived from quinine, from methylene blue, phenol, iodine, anarcotine, analgen, phenocol, parthenium, aïlanthus, chiretta, eucalyptus, or any other drug. Capsicum added to quinine seems sometimes to enhance its effects.

For the enlarged spleen Manson advises counterirritation with iodine or ung. hydrarg. biniodid., with salines, quinine, arsenic and iron. Portal congestions are benefited by Kissengen or Carlsbad. Cachectics require removal to a salubrious residence, and great care to restore the blood.

The food should be light and fluid; lemons are much relished, boiled in water; in convalescence the nutrition increased.

The basis of prophylaxis is the extermination of the anopheles and protection from its bites. Drainage and cultivation, or complete flooding; filling in of stagnant pools; subsoil drainage with irrigation; good paving of towns. Build on high and dry places, yet sheltered with trees, covering soil with grass or cement; keep flower beds away from bedroom windows; don't allow drain water to flow over surface; don't keep water unchanged in tubs or tanks for mosquitoes to breed in; stock ponds with fish, or throw petroleum on them. Eucalyptus trees planted in malarial wet

places dry the soil up and possibly the emanations keep away the insects. Sun-flowers, chrysanthemums and other plants are said to be useful in some as yet unknown manner. If the soil must be upturned it should not be in the malarial season. Local traditions as to unhealthiness of locations should be respected; and the abdominal protuberances of the natives bear witness to the salubrity of a district. Suspicious water should be boiled before being drank; keep on the safe side. Keep in the house at night; sleep as near the roof as possible; use the mosquito net invariably; and especially compel malarial persons to use them to avoid infecting the mosquitoes.

Duncan found no prophylactic value in arsenic, but quinine three to five grains a day, reduced the number of cases one-half. Corre found it did not prevent pernicious forms. Celli speaks well of methylene blue as a prophylactic. Manson considers tea, coffee and small doses of alcohol of service; the last only after the day's work is done and there is no reason for going again into the sunlight. Crudeli praises lemon decoction.

In America three methods are employed to break up the chill: A hypodermic of pilocarpine, gr. 1-6, enough to cause free sweating and thus advance the paroxysm to that stage. This is useful in the hyperpyretic forms and many others, the only contraindications being extreme debility, collapse, and pulmonary hyperemias. Next, a hypodermic of atropine, gr. 1-134 to 1-67, to which brucine, gr. 1-20 to 1-10, or strychnine, gr. 1-30 to 1-20, may be added if the debility is extreme. Brucine acts more speedily than strychnine. This is specially indicated in the algid form, where the in-

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Croftan treated six cases of diabetes with an extract of pancreas, muscle and blood; this is supposed to destroy sugar. Good success.

Allen says the general paresis increases from 6 to 10 per cent of all cases of insanity in this country.—*Med. News*.

tense cutaneous vasomotor spasm is to be quickly unlocked, and the failing vitality revived. It is also to be used in hemoglobinuria, where strychnine has given the best results of any remedy as yet reported to us. Full doses are essential; and the physician who does not comprehend dosage for effect has no business treating pernicious malarias.

The third method is the use of chloroform by the stomach, which has been already described. The local effect of chloroform on the stomach is powerfully stimulating, and to this rather than its toxic action the benefit is probably due; though as a relaxant of spasm it acts also as atropine does. But it is best given in ether, pure alcohol, or with capsicum, ginger, camphor or other revulsants, to get the best effect. "Bring the tears to the eyes." Give the hottest thing at hand, undiluted.

Reports from very many American physicians indicate the absolute necessity of keeping the alimentary canal clear and aseptic, the elimination free. "To neglect the liver is simply suicide here," said an old physician from the Carolina rice fields. Many cling to calomel because they have learned to know, use and trust it; but a grain of emetine will clear the liver thoroughly without salivating. But so great are the advantages from emptying the bowels and giving zinc sulphocarbolate that many believe this as essential as quinine.

Excepting in the severer attacks it seems likely that the arsenate of quinine in doses of a grain a day equals ten to fifteen grains of the sulphate. If so, the smaller dose and the freedom from the objectionable features of the big doses are worth considering. But in the dangerous fevers of the tropics give quinine

to effect. The last case of this seen by the writer was in consultation with the late Prof. Pancoast, William H., in the person of a physician just returned from the Chagres district. The symptoms indicated the so-called "malarial" yellow fever—bilious remittent. He got quinine in doses of twenty grains. Next day his temperature reached 105° F., and the quinine was raised to forty grains. That night the physicians were called in as the thermometer showed 106.5° F.! The quinine was raised to sixty grains, given by the muscles and rectum, and next morning he was convalescent. But such doses are not to be given heedlessly or needlessly. This world is full of doctors who seek reputation as "terrible fellows," by giving such doses to any ordinary case of ague, and bragging about it afterwards. One of the writer's patients had been rendered permanently deaf by such a dose, administered in Cincinnati by a prominent teacher.

In India the practice for enlarged spleen is to rub into the skin over this organ a lump of ung. hydrarg. biniodid. as large as a bean, and then expose the naked skin to the rays of the sun or a hot fire. In Germany the patient is placed in a hot bath, and a half or quarter-inch stream of very cold water is directed against the skin over the spleen under the hot water. Hypodermics of ergotin have been vaunted. The most effective method is the use of the indicated remedy, berberine, which contracts relaxed connective tissue. Give gr. 1-6 every two hours, for a month; with an equal dose of quinine arsenate, keeping the bowels clear and aseptic. The dose of berberine may be raised to twenty grains a day, if necessary, but there is

According to Kraft-Ebing, paresis of the insane is a product of "civilization and syphilization?"—*Med. News*.

Previous syphilis is demonstrable in from 25 to 90 per cent of the cases of general paresis. Alcohol also an important factor.—*Allen*.

much benefit in the steady, persistent administration of the small doses, never allowing the plasmodia a moment's freedom from the presence of the inhibiting remedy in the blood.

Before the mosquito theory had been elaborated the attacks of malaria were attributed to water-infection. Travelers in Africa noticed that immersion in the rivers was sure to be followed by an attack. When the Yazoo railroad was built it was thought that the work would have to be abandoned on account of the malaria, till artesian water was substituted for that taken from the bayous. After that, malaria only affected those who persisted in using the bayou water. This was thought to indicate infection of the bayou water, but there is another explanation that seems plausible: In experimenting with mosquitoes many observers have noted that some insects would not bite certain persons. The reason was not determined. In Alaska it is customary to smear the exposed skin with solutions of calcium sulphide as a protection against the voracious mosquitoes of that region. It is probable that persons who are exhaling the fumes of this agent will not be attacked by mosquitoes. Artesian water, drawn from great depths sometimes, is often charged with carbonic acid and highly solvent, so that it is well impregnated with various mineral salts, among which the sulphur compounds often figure. It seems possible that some of these may render the blood disagreeable to the Anopheles, and that this accounted for the immunity of those who drank this water. It is worth while to see if persons who are saturated with the sulphides so that their skin gives off its odor, are not immune against malaria

and yellow fever. The drug in doses sufficient to saturate is harmless.

The writer believes it best to give the quinine in divided doses, so that there shall not be a moment in which the blood is not so charged with it as to render it impossible for the parasites to mature in safety. No matter how large the single dose, it will only act on those that are in an unprotected stage of development, and the rest will remain to propagate.

Has the tremendous stimulation of leucocytosis caused by pilocarpine any value in multiplying the defenders of the body? If so, how about nuclein?

Now that the studies of the plasmodia have given us some certainty as to the diagnosis, and a means of testing scientifically the progress of the malady and the effect of remedies, we may begin to study the therapeutics with some better means of judging than the recovery or death of the patient—an event that may be *post hoc* or *propter hoc*.

The men most competent to speak upon the subject of malaria and its treatment are the men who meet this disease in their every-day practice—especially our Southern physicians. Upon them must devolve the duty of a conscientious and unbiased investigation of the newer theories which seem to promise so much for the solution of this great problem, a problem of the highest economic as well as of acknowledged social importance. This article is written with the special hope of drawing out the opinions of this class—especially as regards treatment. In spite of the acknowledged superiority of quinine over other drugs we feel that the last word regarding treatment has not yet been said—and after all, this is the final problem.

Chicago, Illinois.

General paresis is a disease of the prime of life, occurring most frequently between thirty and fifty.—Allen.

The two most important features of general paresis are progressive mental failure and paresis of muscles.—Allen.

X-RAYS IN THE TREATMENT OF PULMONARY TUBERCULOSIS.*

BY EMIL H. GRUBBE, B. S., M. D.

ALTHOUGH a very old subject, the study of the treatment of pulmonary tuberculosis is always interesting. Statistics tell us that one-third of all deaths occurring between the ages of fifteen and forty-five—the years of greatest mental and physical activity—are due to tuberculosis. This appalling death-rate and the seeming inertness of therapeutic measures to meet the conditions, effectively causes the medical world to continue to investigate methods and means of cure. It is a notable fact that a most important part of recent literature bearing upon this subject is devoted to the consideration of discordant opinions of those members of the profession who consider themselves in a peculiarly favorable position to imbibe therapeutic knowledge.

Physicians have been disappointed so many times, and the introduction of new theories and methods of treatment is so persistent, that it is difficult to secure proper attention and long enough trial of a remedy, to ascertain its real value. The usual medical treatments, when used alone, are notoriously deficient and limited in bringing about good results, and it is the opinion of competent practitioners that this disease is not amenable to so-called "drug treatment."

Judging by the multitude of instructive reports recently published in the medical press, the x-ray is by far the most interesting therapeutic agent that has lately appealed to the medical pro-

fession. The remarkable power of this ray in tuberculosis of the skin and bones would naturally suggest its use in the treatment of pulmonary tuberculosis. Critical and extensive clinical observation proves that x-ray treatment in this disease is rational in its conception.

This agent occupies an important position in that it offers a most direct and effective way of getting at the seat of trouble. The treatment is not only sound and valid from a scientific standpoint, but it also appeals to the common sense of the patient.

During the past three years several writers have testified to the value of x-ray treatment in tuberculosis, therefore I can't be accused of introducing this subject to you.

A word about the etiology of pulmonary tuberculosis. At the present time the weight of available evidence is in favor of the view that this disease is primarily the result of a peculiar kind of malnutrition. Due to this malnutrition, a markedly-diminished power of resistance of the lung tissues to the invasion of the bacillus tuberculosis is offered. In some cases, no doubt, malnutrition arises because of an inadequate supply of suitable food. In others—the larger number—the cause of malnutrition is due to defective chemical elaboration and absorption.

Unfortunately in studying the different stages of pulmonary tuberculosis we are very apt to misunderstand each other, for the reason that all diagnosticians do not make the same classifica-

* Read at the last meeting of the American Roentgen Ray Society.

Allen refers to three general types of paresis of the insane: (1) the dement; (2) the classical; (3) the melancholic types.—*Med. N.*

In the dement type there is progressive mental failure without marked mental exaltation or depression.—Allen.

tion. I believe it is well for our purpose to recognize three clinical types of this disease:

1. Acute cases in which the prominent symptoms are: loss of appetite, weight and strength, slight rise of temperature, cough, expectoration, pain and no hemorrhage.

2. Cases in which the above symptoms are present, but in an aggravated form and in addition frequent profuse hemorrhages, increased frequency of breathing without physical exertion, and marked anemia.

3. Cases which have become chronic, i. e., the patient has had characteristic symptoms of the diseases for months, but does not seemingly go down rapidly. There is increased cough and very free expectoration, indicating the formation of cavities.

Although the x-ray may be given with benefit in all forms or stages of the disease, it is of particular value in the first and third varieties. I need hardly add that in a given case the sooner the treatment is begun the greater the chance of success and absence of complications. The treatment is suggested as an aid to the system in coping with a powerful enemy. It reinforces the action of the blood and brings this combined activity in intimate relation with the diseased tissues.

I realize that the average physician thinks it very important to recommend sanatorium treatment and change of climate for these cases. Aside from the fact that sanatoriums for the special treatment of this disease by modern methods are not very numerous, and an ideal climate is still to be found, very few of the many who are afflicted can afford such treatment. Most of these

sufferers must earn a living, and therefore remain at home. I believe the x-ray possesses in a marked degree all the requirements for the treatment of the local conditions in this disease and that too with comparatively few deleterious by-effects. In connection with proper adjuvants many advantages will be apparent to any physician who gives the subject serious thought.

The question of accurate and early diagnosis is of great importance if we wish to save some of these cases, and in this connection let me state that not only is the x-ray of therapeutic value in this disease, but it is undoubtedly of great use in making a proper diagnosis. I believe pulmonary tuberculosis can be diagnosed earlier by the x-ray than by any other means and long before other physical signs are grave enough to attract our attention.

As to the methods of treatment. Much, if not all, depends upon the correct application of not only the x-ray, but common sense, in each individual case. The necessity of studying our cases individually can't be dwelt upon too much. This holds good in treating any disease, but is of particular importance in treating pulmonary tuberculosis. We should meet existing conditions as they arise rather than adopt routine measures.

The method I use is as follows: In unilateral cases the affected area (previously determined by radiograph) is exposed to the x-ray, both from the back and front, at each sitting. Sitzings are given daily and last eight to twenty minutes, according to the generator and the individual patient. The time is equally divided between the front and back. If a static machine is the generator I

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In the classical type of general paresis there are exaltation, excitement and grandiose delusions.—Allen.

The melancholic type is characterized by depression, sleeplessness and hypochondriacal ideas. Occasional changes to excitement.

suggest seances of twelve to twenty minutes, i. e., six or ten minutes from the front and six or ten minutes from the back. When the induction coil is the generator the time may be reduced to from eight to fifteen minutes for a seance. In some extreme cases the above exposures will be too long. Therefore, when the patient complains of weakness or fainting the seance may be shortened as necessity requires.

I consider the vacuum of the tube used a very important feature of the treatment. First, the tube should back up a spark-gap of three to five inches. Second, the tube should be a universal regulating tube, as it is only possible to do accurate x-ray work with a tube having a controllable and stable vacuum. Third, the luminous hemisphere of the tube should be placed about six inches from the body. Fourth, the tube should not be excited to give a bright luminous hemisphere, i. e., a subdued light is best. I do not consider it necessary to use a mask or protector in most cases; in fact to use a mask would be to curtail the value of the treatment, for we should treat practically not only the lung tissue involved, but also the healthy lung tissue and last, but not least, the glands in the immediate neighborhood of the diseased area. The cervical, axillary and mesenteric glands should all be given the benefit of x-ray action. The face and hairy parts may be protected by means of masks of lead.

Removal of all clothing is not necessary, except in women; the corsets, if any, may be removed. In those patients in which both lungs are affected the same method is used, only the tube is placed so that both lungs are brought under x-ray influence simultaneously.

From an extensive experience with physicians who make use of x-rays in the treatment of this disease I am led to believe that enthusiasm for this particular treatment is very apt to cause us to forget to treat the patient also with other good methods in addition to the x-ray treatment. The present-day physician should not expect to cure his tubercular patients with a local remedy alone, for, if we have learned something about this disease it is that local treatment alone is insufficient and must be supplemented by rational systemic treatment. The x-ray takes care of the local conditions in an admirable way, but what about the general conditions?

I am aware of the fact that you, as physicians, have studied the subject of materia medica, dietetics, hygienics, sanitary science, and all the other subjects which pertain to the alleviation and cure of this disease, but, in view of the possibility of your wanting to know how I use these agents as an aid in relieving pulmonary tuberculosis, I will ask your indulgence for a few minutes while reporting the methods which have given me results.

First, we have the matter of diet. All physicians who have had an extensive experience in treating this disease agree that diet, digestion and assimilation are controlling factors only second to local treatment. Indeed some go so far as to say that in diet lies the solution of the whole problem. I believe every tubercular patient needs change or alteration in diet. From the beginning, then, care must be taken to supply the proper diet, i. e. foods which are easily digested and which are assimilated and consequently supply the nourishment which is lacking.

The earliest muscular symptom of general paresis is tremor—disturbances of speech and handwriting.—Allen.

Loss of the knee-jerk, failure of the pupil to react to light and optic atrophy are early symptoms of general paresis.—Allen.

In our enthusiasm to use all the newly advertised preparations and to impress the patient with our learning we are very often led astray. Our judgment is usually biased by reading and the patient suffers as a result. Too often, when directing a tubercular patient's diet, we forget that foods which may be ideal under physiological conditions are often unideal when pathological conditions are present. It is a significant fact, attested to by many, that if a patient is unable to perfectly digest and assimilate food, no matter how good you may think this food, or how much you gorge and stuff him, he will still go under while you look on. It has come to be largely a matter of convention to treat every case of pulmonary tuberculosis with concentrated foods or cod-liver oil.

I am emphatically opposed to the excessive use of fats in the treatment of this disease. Aside from the fact that these patients can't digest pure fat, it has been pointed out by high authorities, long ago, that fat inhibits metabolism and thereby exerts an influence which is favorable to the accumulation of morbid products, i. e., poison in the system. When fat is necessary we prefer digestible non-nauseating fat, i. e., good, rich milk, buttermilk, cream or butter, but these are always to be taken in connection with starchy foods, preferably bread or crackers.

It is self-evident that by taking foods which are digestible, but do not tax digestion, we shall get most absorption and assimilation. I have found the use of predigested foods quite beneficial in many cases. Palatability, that great stimulator of appetite, is too often not considered. Mixed diet has saved many a tubercular case. Profuse expectoration

in some cases causes the saliva to be wasted, consequently there is poor ability to digest starches. We aid such cases by giving starch digestants with each meal. Correctives and laxatives are used only when indicated. Stimulants we prohibit.

Next to diet it is very important to supply these patients with pure air and plenty of it. It is never necessary to expose or fatigue a patient to give him a proper amount of fresh air. He should live out of doors whenever possible, but vigorous exercise should not be advised. Those with high fever should not exercise at all. Damp surroundings, meeting rooms, such as theaters and churches, should be avoided. The sleeping and living rooms should have constant circulation of air, day and night. Sunlight also should be courted whenever possible.

Complications and exacerbations must be treated as they arise and individually. Cough is one of the symptoms we are most often called upon to allay. The remedies usually employed for this purpose have the serious disadvantage of interfering more or less with expectoration and free breathing and the after-effects upon the stomach, heart and brain are usually not very desirous. Morphine and codeine have been used and with a certain degree of success, but since their action is to lock up the secretions which should be especially active in order to eliminate the germ and its toxins, the use of these agents should be resorted to only in extreme cases.

Hemorrhage, always a symptom which causes great alarm to all concerned, unfortunately does not yield readily to treatment. The patient should be told to recline and keep quiet. Ice or icewater may be given in small quantities, but drugs which are supposed to have direct



Do not confuse neurasthenia with general paresis; knee-jerk prominent in first; eye symptoms absent; worst in morning.—Allen.

Mayfield suggests that under the influence of typhoid toxins the normal intestinal germs may become virulent.—*Med. News*.

influence over this condition are seldom if ever of value. At any rate no drug should be given which has a tendency to raise arterial tension. In the treatment of this condition we believe with Hare that "masterly inactivity is sometimes better for the patient and physician than meddling therapeutics." When a cavity has healed it is very important to prevent reinfection, not so much from the tubercle germ, but from the pus germ. To minimize this infection I have used ozone, in fact I try to guard against it in every case by giving every patient ozone treatment from the beginning. Of the antiseptic qualities of ozone there can be no question. The same may be said of the practical applicability of this agent. Being a gas it finds its way in a most minute and direct manner to the diseased tissues. Expectoration is usually increased under this treatment and in a general way the respiratory apparatus is stimulated to more vigorous action. Ozone for this purpose may be obtained in many ways. I prefer to generate it from the top of an Oudin resonator. The patient stands or sits one to two feet from the instrument, which is regulated to give a silent discharge. Treatments may be given daily, sittings five to twenty minutes.

In explanation of the possible action of the x-rays upon this disease, several views may be advanced. First: It is admitted that the power of the blood to slay bacteria is very evident. It is also well known that as a stimulator of leucocytic and chemic activity the x-ray is one of our most powerful agents. Therefore we may say that the results are obtained by reinforcing the natural germicidal powers of the blood and the production of a leucocytosis. In accepting this view it is

not necessary to ascribe any direct bactericidal power to the x-ray. Its action is rather inhibitive than bactericidal, and attenuation of germs occurs because of the unfavorable surroundings or environment. Another view: Since it is well known that the congested lung is immune from tuberculosis, it may be that the x-ray effect can be ascribed to hyperemia and congestion which is always the result of frequent x-ray exposures. Due to this irritation, the vascularity of the lungs is increased and thereby nature is given an opportunity to wall off the infected areas by the formation of fibrous tissue. Not only this, but the local stimulation increases the ability of the vessels to absorb and remove morbid products.

There is no question but what irregular blood circulation is one of the main causes of depraved nutrition and consequently emaciation. The x-ray is very effective in correcting this condition because it decidedly stimulates oxidation and therefore metabolism. Frequent examinations of the blood of patients under treatment shows rapid increase in the number of red cells and of the percentage of hemoglobin. The marked increase in appetite, weight and strength can be explained only by a stimulating effect upon metabolism.

The influence of the x-ray upon other symptoms is also very marked. Pain, so common in this disease, is relieved in nearly all cases. Dyspnea, cough, expectoration, temperature and night sweats are lessened from the beginning.

Since I have already exceeded the limit of time, I shall sum up the results of this treatment in a general classification rather than give a large number of specific records.

I wish to report fifty-four cases.

To disinfect the thermometer: Put two or three drops of formalin in the thermometer case; wash before putting in patient's mouth.

Intermittent Fever: Quinine is the remedy to break up an expected chill; take six hours before the regular time.

Twenty of these I have discharged symptomatically cured. Sixteen were improved; twelve discontinued treatment and six died while taking treatment. These were all private cases and therefore I had had every opportunity to observe changes if any occurred and personal attention was given each case. The average length of time under treatment of the cured cases was eight months. All of the sixteen who improved but cannot be pronounced cured, were considered advanced cases and we undertook to treat them for relief rather than cure. Fifteen of those cured belonged to the first class (according to our classification). Four belonged to the third class and one to the second class. Of the six which died, one belonged to the third class and the remaining five to the second class. Since it is admitted that sex is not a particular factor in this disease I make no classification based upon sex. The question of age is also omitted on account of its slight importance.

Summing up our results we find that, comparatively, from a percentage standpoint, we can say that in our hands this treatment has done very well. It is also of special interest to note, that with only two exceptions, the treatment was considered beneficial even in the hopeless cases.

I cannot too strongly impress upon you the importance of pushing this treatment when once begun.

I am frank to say I do not consider the x-ray a specific in pulmonary tuberculosis, but in view of the fact of the large mortality-rate from this disease any treatment which can even mildly cope

with it should be assigned a conspicuous position among its remedies.

By selecting proper cases, it will always succeed in alleviating, and in a large percentage of cases it will effect a cure. I believe the x-ray should be accorded most respectful consideration by all who have charge of tubercular cases.

In conclusion it may be stated that under x-ray treatment:

1. Tubercle bacilli are destroyed.
2. Hemorrhages, pain, night sweats, and fever are controlled.
3. Expectoration is easier and more copious.
4. The existence of cavities and hemorrhage does not preclude recovery.
5. All stages of pulmonary tuberculosis are amenable to this treatment. As with all other therapeutic measures, the earlier the application the more favorable the prognosis.
6. Local conditions alone should not determine the prognosis. The patient's general health is a very important factor and should always be carefully considered.
7. Appetite, weight and strength increase rapidly when the case is a favorable one.
8. In addition to its local effect a general stimulant effect is noted.
9. Specific curative effects should not be expected in all cases.

Chicago, Illinois.

—:O:—

We are glad to be able to present this phase of the treatment of tuberculosis. No up-to-date physician can afford to overlook the physical methods which have come in during recent years; study them, master them, but do not lose sight of fundamentals. Prof. Grubbe's paper opens up a promising field.—Ed.



Opinions differ as to the size of the necessary dose of quinine in malaria; excessive doses are now rarely used.

The purpose of the large single dose of quinine is to flood the blood with it during sporulation—the paroxysm.

ACTINIC SUNLIGHT IN THE TREATMENT OF TUBERCULOSIS.

BY M. W. PAGE, B. S., M. D.

ABOUT a year ago I began the use of actinic sunlight in the treatment of tuberculosis. The result has been so satisfactory that an outline of the work seems advisable. The prejudice in my own mind, against all remedies or treatment in this dread disease, was overcome by the simplicity of the plan and the marked relief shown in even the hopeless cases.

A few of the old-timers who anchor to cod-liver oil and creosote, naturally made fun of the "concentrated moonshine" as they were pleased to term it. The reports of Dr. Kime, who originated the method, were more favorable than any others that I had examined. Instead of using the reflector covered with blue glass in the open sunshine, as some do, a solarium was built for this special purpose. This consists of a building thirty feet long by fourteen feet wide, facing the south, with six feet of blue glass extending the whole length at an angle of forty-five degrees. This cuts out the red or heat rays and permits only the chemical or actinic rays of the sunlight to pass through. By means of compound, concave mirrors three feet in diameter, these rays are collected and focused to a point about six inches in diameter upon the bare chest of the patient from one to two hours each day. The light, though intense, does not blister nor cause the patient to feel uncomfortable.

The penetrability of the rays thus focused is proven by photographing through the flesh of the cheek. The destructive power of actinic light, to all

forms of low animal life, has been shown by Finsen—this especially where the sunlight is used instead of the artificial or electric light.

It might be well to state, also, that nearly all the patients treated have been under no restriction as to exercise, diet, etc. They were at liberty to make use of as much or as little of our advice as they chose. A sanatorium is now in contemplation, and when completed a regular system of rest, forced feeding, open air, and exercise can be established with attending better results.

Those who came in for only a week or two of treatment are not considered in this report. Patients who cannot remain a month are not encouraged to take the light. The usual time, according to condition of patient, is from one to six months' treatment. In the last stages of the disease, relief is the only thing that can be expected. The irritability of the nervous system as well as the constant hacking cough, during this stage, seems to be soothed and quieted by the gentle influence of these, as yet mysterious rays.

Of the twenty-six cases treated for a month or more, five have made a complete recovery. In each of these, bacilli were present, emaciation and all outward signs of the advancing disease. Three are still under treatment, with every prospect of complete recovery. Three have died, of this number a little girl, twelve years of age, who was advised to try the light as a last resort. Decided improvement was made in all the other cases excepting two. No benefit seemed to be no-



Is it not better to keep the blood saturated by small doses frequently repeated? Protozoa always found in malarial blood.

In giving quinine in quantity follow it with dilute hydrochloric acid; this facilitates and hastens absorption.

ticed in them and they went on their way, as they had been doing for twelve years before.

Of the five recoveries one deserves special mention. The patient, a banker from Milwaukee, had fought the disease for ten years. He had visited the principal health resorts of Europe and received treatment from their leading specialists. He finally came to Denver and lived for three years at the Oak's Home. Here the second and third ribs of the right chest were removed in the hope that the contraction of the chest wall might be beneficial in closing the large cavity in the right lung. The operation was a success, but the cavity remained the same. For several years he had not known a night's rest; he could not lie at all on his right side. Expectoration was free and abundant and there were moist rales, so pronounced as to be heard several feet from the patient.

In a course of four months, improvement began in thirty treatments; after taking the light he could sleep all night on either side. Cough entirely gone; no rales could be detected by the use of the stethoscope. His physician could find, after several examinations, no bacilli in his sputa, which on the beginning of the treatment was filled with them. On the fifteenth of last September he returned to his home and family, the happiest man in the land. He reports "all well" after enduring the severe weather of last winter in Milwaukee. It is needless to say that his physician, one of the best in the city, whose mind is as broad as his heart is kind, believes in the value of actinic sunlight.

Upon the other hand, to show the selfishness and bigotry that disgraces our profession, certain practitioners who

should lay claim to a specialty in tuberculosis by the number of death certificates issued, without any investigation, did everything possible to discourage the man from taking the light. Suffering humanity! How long must you be cursed by those who are so blinded by jealousy and greed that they would block all the highways of escape, save those in which their petty feet may tread.

Just what changes take place in the lungs under the sunlight treatment it is impossible to state. We know that the plant grown in the cellar or shade is white, while that in the sun is a dark green. No artificial heat or light will produce the change. The chemist cannot analyze the process. He says it is due to some as yet unknown power or element in the sun itself. The ancients recognized the value of the sunlight in treating all diseases. The dumb animal, when sick, seeks the dry, sunny knoll. Physicians send their incipient, and often death-stricken cases, to Colorado, for the rarified air and almost perennial sunshine. It is not the heat, but the chemical or actinic rays of the sun that gives new life and vigor. The same rays also insure life and health by destroying the millions of bacilli thrown off in the expectorated sputa. Experiments prove that the germs become innocuous after a few hours exposure to direct sunshine. In damp and shady haunts they lie in wait for years, ever ready, like the midnight assassin, to seize upon their victims.

Judging from clinical experience the activity of the bacilli is lessened; the increased supply of blood to the lungs brings more nutrition to the diseased part. Consolidations break down, are thrown off and scar tissue takes their



Do not expect quinine to have the desired effect if the bowels are inactive; "clean out and keep clean."

Calomel has a deserved reputation in malaria, preceding the use of quinine; small doses followed by saline do the best work.

place. As the blood makes the circuit of the human body in about two minutes, during one treatment every drop must come many times under the direct influence of the light. The chemical changes there effected are as apparent as those made in the vegetable life.

The life-giving principle of the sunlight is here absorbed and manifests itself in the gain in body weight, disappearance of chills and night sweats, increased appetite and strength, lessening of cough and a feeling of general improvement. Of course this may be due to the inhibitory influence of the light upon the bacilli, which it eventually destroys, or it may build up the resistance of the tissues so that the germs are thrown off by a superior force. The irritant action also favors the formation of scar tissue where cavities have formed.

But the patient suffering from any disease stops not for a scientific explanation of the method of cure. If he did, we would all be more or less at sea. What he wants is to get well. Before chemistry became an exact science, notice the crude doses and methods of the early physician. He was not radically wrong. The principle he sought was in the alkaloid of the drug. The rest was inert matter. I believe the same to be true with reference to light in the treatment of tuberculosis. The method is still in its crude form, but the principle is correct and future research and experiment will bring more perfect application of that method. Till that time comes it is the height of folly to sit down and say that nothing has been done or nothing can be done but to let the patient die. The old physicians were justified in giving their crude drugs, but to-day, with the alka-

loids in the field, there is no excuse for such action.

Since the drug shop has no remedy for this disease, it behooves us as rational physicians, regardless of school or ethics, to aid mankind in favoring any simple, harmless treatment that may save a few if not all those who are face to face with "the great white scourge."

The individual thus stricken need not lose hope. Nature has done wonderful things and her storehouse is ever full and open to those who will come in communion with her. The trouble often lies in getting the afflicted to see the necessity of such action till great inroads have been made by the disease. The fastidious housewife cannot leave her dusting; the business man his shop or office; the wealthy the social whirl of gayety. Fresh air, plain, nutritious food, regular hours, are things to be endured rather than enjoyed. They flirt with death by dosing with some doctor's pill, guaranteed to cure all human ills. Perhaps the family physician holds out this hope. The man or woman who hasn't stamina or common sense enough to help nature fight the disease, ought to die, and the quicker the better for humanity.

In conclusion, the value of sunlight in its modified forms is no longer a question or matter of experiment. What the knife or cautery could not do for lupus, the light has done. In tuberculosis of the lungs its field is broad and full of promise; no harm can come from its use, even in those cases it cannot benefit. Combined with rational medicine, it forms the strongest bulwark against the onward march of this dread disease. "Let there be light," especially strongly concentrated, actinic sunlight.

Denver, Colorado.

Piperine and capsin enhance the action of quinine; useful in pernicious forms, to arouse reaction.

Brodnax considers acetanilid and quinine greatly superior to quinine alone; see his article last month.

POINTS ON MINOR SURGERY.

FACE, NOSE, EAR AND EYE.

BY GEO. H. CANDLER, M. D.

THE advice to use always a dry dressing in wounds of the face will, if followed with judgment, save an infinity of trouble. Unless there are tags of possibly dead tissue or certainty that the wound is infected, or contains foreign substances, the dry occlusive dressing will permit the patient to go about his business and relieve the surgeon of much tedious work. Healing goes on rapidly and the scar is slight. Of course in every case the patient should be seen twenty-four and forty-eight hours after the dressing, and if there is a sign of pus the wound must be exposed and cleansed. If proper care is taken at the time of dressing, however, nine out of ten minor face injuries will heal perfectly under the original dry dressing. Only use *plenty* of whatever dessicant antiseptic powder you fancy.

Wounds about the margin of the nostrils, eye and mouth, cannot be treated this way—at least rarely. Some of the most annoying and difficult emergency cases which confront the long-suffering general practitioner are those of foreign bodies in the eye, ear or nose. It takes a cool nerve and a steady hand to remove the offending substance from a child and even from many adults.

When the ear is involved, first and foremost try to get an idea of what the offending matter is, how it got there and *when* it got in. Then in a good light (reflected if possible) see what you can see; if the body is near the external orifice and is hard (a button or bean for instance) take a small brush or stick, dip

it in some stiff glue and make it adhere to the object. After a while a steady pull will settle the trouble. The ear hook and spoon will do good work in a steady hand under proper conditions, but be very sure you get *behind* the substance, before you attempt to remove it. Camphorated oil will kill any insect, *cito, tuto et jucunde*, and later it can be syringed out easily. H_2O_2 , pure, will dissolve the hardest plug of wax and the pain following its extraction can be controlled (as can all earaches) by placing a wad of cotton in a small funnel of paper, saturating the cotton with chloroform and then after placing the small end of the funnel in the ear, blowing upon the cotton.

Sharp substances must be removed under anesthesia: The tympanum will surely be destroyed if attempts are made to remove such objects (partially imbedded in the walls of the canal as they are) from a struggling patient. The writer remembers a case in which the small bones of the ear were pulled out one by one, as "foreign bodies," the unhappy patient meanwhile making the welkin resound with his justifiable yells. See what you get hold of before you try to extract anything from the ear. A stream of warm water directed against the wall of the auditory canal will wash out small objects or allow the wire loop or spoon to surround them. Do not use water if the substance be a seed or anything which would swell if wet. Finally, unless the extraction is evidently an easy matter,



Instead of quinine sulphate in the heroic doses of the fathers, try quinine arsenate in small, repeated doses.

Have you read what Coleman says about the treatment of malaria? If not you should look it up.

do nothing till you have reflected light and an anesthetized patient.

In lancing boils about the meatus of the ear, plug the canal with cotton, then spray the boil with ethyl chloride and incise. Keep the ear plugged till discharge has ceased.

Foreign bodies in the nose vary from seeds to hairpins. The writer had a case in which one prong of a hairpin projected from the nostril while the other point lay just under the skin near the bridge of the organ—and it was a very prominent “Roman nose,” moreover. How it got there “deponent answereth not,” the woman stating that she was reading and at the same time investigating her nasal cavity with the hairpin. How she (or her friends) managed to get one point through the nasal wall and leave the other just visible at the nostril is another matter which always has passed my understanding. An incision over the point and extraction that way solved the problem of “how to get it out.” Ten minutes’ earnest work failed to remove it the way it went in.

Most foreign bodies can be removed from the nose with a piece of fairly-stiff wire bent like the italic letter “f”. This may be slipped behind the object by raising the handle part and a straight pull does the rest. Do not attempt to syringe out such substances or you will have trouble. If blood clots obscure the field it may be necessary to very gently wash out the nostril with a spray of warm water, but if this is done, have the head held downwards. The wire speculum carefully inserted under a good light will enable you to grasp with a small pair of toothed forceps larger seeds, etc. Sharp substances must be removed according to their location and it is better to give an

anesthetic. Bleeding in all cases can be stopped with adrenalin chloride solution and a plug of cotton. I have removed some un-get-at-able things by having snuff inhaled through the other nostril; the resultant sneeze expelled the body promptly.

The eye requires more care, perhaps, than any other organ. Every doctor should make it a point to practice evert-ing the eyelid, as in nine out of twelve cases the substance will be found under it. To evert the upper lid have the patient look at his feet, seize the margin of the lid or eye-lashes and draw firmly down and away from the globe; place some narrow, flat substance on the lid and turn the lid up over it. Have the patient look steadily down and you will be able to see and swab the upper angle of the conjunctiva. It is a good plan to have someone else do this while you examine the field with a magnifying glass. Wipe off foreign bodies with a little cotton, wrapped around a probe or match. If the particle has become imbedded, cocaineize and use the spud with great care. It is a good idea to cocaineize whenever it is necessary to explore the eye. Otherwise the movements of the patient prevent good work. Four per cent solution is best. A drop of olive oil placed in the conjunctival sac will often relieve the condition promptly, especially in those cases where “nothing can be seen,” as causing the irritation.

If the eye has been incised it is necessary to make sure of the location of the lesion. Prolapse of the iris is to be feared. If the cut is near the center, dilate the pupil with atropine; if at the margin, contract with eserine. First wash off the eye with a gentle stream of some mild alkaline antiseptic solution, then apply



In the next case of malaria see what will be the result following the cleaning out process and the use of the sulphocarbolates.

In many cases of malaria autotoxemia is a more important factor than the protozoa. Clean the sewer.

the atropine or eserine solution, close the eye and apply a firm but elastic pad of cotton and a fairly snug bandage. Protect the other eye from light and have a competent oculist see the case if at all

possible. If the corneal cut gapes widely you must even brace up and draw the edges together with a fine stitch or two

(To be continued.)

Chicago, Ill.

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CONIUM MACULATUM AND ITS ALKALOIDS.*

BY J. M. FRENCH, M. D.

CONIUM *Maculatum* (common names, hemlock, spotted hemlock, poison hemlock, poison parsley) is a biennial herb, smooth and branching, with spotted stems growing to the height of about three feet, and compound leaves having lanceolate, pinnatifid leaflets, which are ill-scented when bruised. It is indigenous to Europe, Asia, and the northern part of Africa, and was introduced into this country from Europe. It belongs to the natural order Umbelliferae, and is found growing wild in waste places, flowering in July. The part chiefly employed in medicine is the full-grown fruit, gathered when green. A tincture of the green leaves was formerly official, but was found to be very unreliable as to strength, and its use has been mostly abandoned.

This plant has long been known for its benumbing and poisonous properties, and was employed by the ancients for the uses which these properties would indicate, being the plant by means of which Socrates was put to death as a punishment for his teachings to the young Athenians. It is also claimed by some authorities that conium is identical with the "gall" mentioned in the Scriptures, in such passages as Matthew 28:34, "They gave him vinegar to drink

mingled with gall." This conclusion is based upon the fact that the Hebrew text makes use of the same word "rosh" for both hemlock and gall, thereby warranting the inference that the two plants thus referred to are one and the same.

The chief active ingredients of conium are a fixed oil, a volatile oil, and three alkaloids, coniine, methyl-coniine, and conhydrine. The most important alkaloid, and the only one used in medicine to any practical extent, is coniine, sometimes also called cicutine. This is of some historical importance as being the first of the vegetable alkaloids to be formed by synthesis in the laboratory. It is a volatile, colorless, oily liquid, having an offensive, mouse-like odor, and a pungent taste. It is insoluble, and readily undergoes decomposition. It combines with acids, however, to form salts which are crystalline, non-volatile, soluble, and of stable composition.

The alkaloids methyl-coniine and conhydrine act in a very similar way to coniine, except that they are weaker; hence the effects of the crude drug and its galenical preparations are substantially identical with those of coniine.

Physiological Action.—H. C. Wood states the primary physiological action of coniine to be as follows:

"The chief symptom produced in man

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Picric acid once had a reputation in malaria; it may be given with quinine to prevent gastric irritation, or alone.

To prevent the "head noises" of quinine, sodium bromide may be given in small doses; try 5 grains of each.

*Reprinted from Merck's Archives.

by coniine when taken in doses just large enough to impress decidedly the system, is great muscular weakness or languor, with some disorder of vision and giddiness. On attempting to walk, the patient suffers from a feeling as though his feet were made of lead, and he staggers and falls from the refusal of his knees to support him. There is an intense desire to lie quiet in the horizontal position, and as the eyelids are especially affected, the eyes are kept shut."

According to Bartholow, when given hypodermically in the largest dose which can safely be administered, it induces sleepiness, vertigo, coldness of the surface, diminished sensibility, and weakness of the inferior extremities. The respiration becomes slower and less full. The pulse diminishes in number and force, falling so much as thirty or forty beats per minute.

Though coniine is classed as a motor depressant, Guttman has shown that it does not act on the spinal cord, nor does it destroy the irritability of muscular tissue, but its chief action is to paralyze the peripheral extremities of the motor nerves. Death is produced by asphyxia, or paralysis of the muscles of respiration, and not by cessation of the heart's movements, for these continue after respiration has ceased.

In cases of poisoning with conium, which have been reported by various observers, the first symptom to be observed was weakness of the legs with staggering, and this was followed by the loss of all power of voluntary motion. The victim next loses the power to swallow, and is unable to see distinctly, or sometimes even to see at all. Paralysis of respiration follows, while the action of the heart continues, but very feebly. The

mind usually remains clear almost to the last, as in the case of Socrates, or in other cases until it becomes clouded by carbonic-acid poisoning. In the progress of the motor paralysis, the lower limbs are the first to be affected.

A full dose of coniine produces considerable gastric disturbance, with nausea and vomiting. Upon the eye, it produces dilated pupils, disordered vision, and ptosis. Its local effects are sedative in painful conditions, and excessive doses impair the functions of the sensory nerves. According to Cushny, although coniine is credited with acting on the central nervous system as a narcotic and depressant, yet this is by no means a characteristic effect in poisoning, consciousness being often retained until immediately before the cessation of respiration. Paralysis of the terminations of the motor nerves is produced with much more difficulty in mammals than in frogs, but unquestionably does occur to some extent. On the peripheral ganglia it acts in the same way as curara. Some writers claim that they are first stimulated and then paralyzed, but whether primarily stimulated or not, there seems to be no question as to the final paralysis. Upon the heart, coniine seems to have but little direct effect, though large doses slow the rhythm and prolong the systole to some extent in both mammals and frogs. Respiration is generally accelerated and deepened in the earlier stages, later becoming slow and labored, then weak and irregular, and finally ceases, while the heart is still strong and consciousness has but just disappeared.

Lethal doses of coniine produce a very decided lowering of temperature. No influence upon the secretions has been noted.

Camphor monobromide is said to intensify the action of quinine and render it more permanent.

At the beginning of a chill, morphine is sometimes used to abort it; this is often a dangerous remedy.

Coniine is excreted by means of the urine mainly, and to a slight extent by the lungs in the breath. Its action thus passes off very quickly even when large doses have been taken.

Coniine Poisoning.—In case of poisoning by coniine, the stomach should be emptied early, either by emesis or the stomach tube. There is no complete or perfect physiological antagonist known, but strychnine, atropine, physostigmine, and caffeine may each be relied upon to antagonize some of its effects, and in theory at least may be given for that purpose when poisoning occurs. Tannic acid renders the alkaloid insoluble, and thus acts as a chemical antidote. Artificial respiration should be continued as long as there is the slightest indication of cardiac action.

Therapeutics.—Conium had very nearly passed out of use as a therapeutic agent, on account of the unreliability of its preparations, when the discovery of the alkaloid coniine rescued it from oblivion, since which it is much more used than formerly, and its use seems to be growing. It is spoken of by some authors as preëminently a child's remedy, while others regard it as especially indicated in the treatment of the diseases of the aged.

1. The primary physiological action of coniine as a motor sedative and depressant would naturally suggest its use in spasmodic affections; and accordingly it has been used in chorea, paralysis agitans, tetanus, convulsions of children, angina pectoris, whooping-cough, laryngeal spasm, emphysema, asthma, and other diseases of this class.

2. Its effect in quieting motor excitement, combined with its slight sedative effect upon the sensory nerves, has

led to its use in the treatment of nervous and mental diseases, especially in the diseases of the insane. It has been found of use especially in cases of acute mania, mania a potu, and delirium tremens. In these cases it may be combined with potassium bromide or hyoscyne hydrobromate. It has also been employed in hysteria and epilepsy, but results have not been sufficiently successful to warrant its further trial.

3. It possesses considerable reputation as an anodyne, especially when applied locally, and has long been considered to possess deobstruent qualities in the case of glandular and other enlargements. In the form of an ointment it is a favorite local remedy in various painful maladies, such as neuralgia, herpes zoster, gout, and chronic rheumatism. It has also been used to reduce the volume and lessen the induration of goiter, scrofulous swellings, enlarged mammary glands, and enlarged liver and spleen. Ellingwood considers it of specific value in relieving the pain of cancers and ulcers. It is of much importance in ulceration of the stomach, either acute or chronic, and especially in incipient gastric cancer. It will soothe the pains in these cases more effectually than other apparently more powerful remedies, but must be used in full doses.

4. In spasmodic, irritative, and painful coughs, such as those occurring in catarrh, acute bronchitis, laryngitis, and phthisis, much good may be accomplished by the local use of coniine in the form of a vapor, or the fluid extract of conium with hot water in an inhaler.

5. In many painful and spasmodic affections, where a positive and direct effect is desired, the best results from coniine are secured by its hypodermic use,



Pilocarpine is recommended, given hypodermically, to abort an impending chill; a good remedy.

Have you tried the methods suggested by Brodnax when a chill impends. He has had the experience and got the results.

and here the hydrobromate seems to be the most desirable salt. Bartholow speaks of its use in this manner as especially adapted to the treatment of asthma, emphysema, angina pectoris, pneumonia, and pleurisy. Also when combined with morphine, he finds the combination very useful in allaying the excitement of acute mania. The indications for its use in these cases are intense motor activity and wakefulness, as a concomitant of mania.

Cowperthwaite gives the following synopsis of the action of conium, from the standpoint of the homeopathic school:

"Acts upon the motor nervous tracts, especially the peripheral extremities of the nerves, producing paralytic conditions. It benumbs the brain and causes vertigo, dilated pupils, and even convulsions. It affects in a remarkable degree the glandular system, causing engorgements and indurations, and altering the structure of the glandular substance. In this latter condition we find its chief therapeutic action, rendering it of essential value in scrofulous and cancerous conditions. The main peculiarity of conium is its adaptability to the diseases of old people, especially old men."

In his list of the therapeutic applications of the drug, he mentions as diseases in which it has proved an invaluable remedy, indurations and scirrhusities of the glands, including the testicles and mammary glands, various diseases of the sexual system, hysteria in the female and melancholia in the male, enlargement of the prostate gland, uterine polypi, mental weakness, vertigo, various disturbances of vision, cancer of the stomach or liver, urinary diseases of old people, and many other diseases.



In algid forms of malaria capsicum is one of the most useful remedies we have. Give full doses, for stimulating effect.

There is a very great uncertainty as to the strength of the various preparations of conium, owing in part to the very volatile character of the active principle, so that it is possible to administer large doses of some old fluid extracts without getting any considerable effects whatever. Especially is it considered that when the strong mousy odor is missing, the therapeutic value is also missing. Another reason for the variation in the strength of different specimens is the varying amounts of the active principle found therein, owing to the different conditions of growth and cure of the plant, and the different methods employed in its preparation. It is said that the preparations of the cultivated plant are of much less strength than those of the same growing wild.

The dose of the fluid extract as usually given ranges from 1 to 5 minims, but as much as 15 minims may sometimes be given. Of the tincture, the dose is 10 to 30 minims, and of coniine hydrobromate from 1-12 grain to 1 grain by the mouth, and much less when used hypodermatically. The eclectics use a specific tincture, of which the usual dose is from 1 to 5 minims, but in assuaging the pains of cancers or ulcers, a much larger dose may be given. The alkaloidists make use of the hydrobromate of cicutine or coniine, in granules of 1-67 grain, given every half-hour until the effect is produced.

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There is no question that conium, or rather its alkaloid, coniine (or cicutine), is a remedy which is not appreciated as it should be. It is one of the best spinal sedatives and antispasmodics at our command.—Ed.

Next to quinine, arsenic is the most generally useful remedy; the combination, quinine arsenate, has a special field.

DOSIMETRY IN GYNECOLOGIC PRACTICE.*

BY DR. MARTY.

PUBERTY.

PUBERTY from a scientific point of view has been the subject of numerous labors. And yet every time a question connected with this subject presents itself clinically we are far from solving it easily.

The study of the different cases met with, the manner in which every patient bears this period, lastly the putting in practical operation of the therapy suitable to it, each one of these points constitutes an arduous, laborious and difficult undertaking.

What must a dosimetric physician do in the presence of a morbid affection which is developing during the period of puberty? What are the medical conceptions which he ought to have of that period, so that he make a right diagnosis, and order a treatment justified by it? What are the therapeutic agents upon which he can confidently rely? Lastly, how is he to administer them and choose other agents to combine with them?

All these questions we propose to solve as practically as possible for all the physicians who read our review, so that they may be able to make use of our method which shall give them the same good results which it gives us.

Although our present work may be but a bringing together of the scattered notes in the works of Burggraave and his disciples, and adding to them our own, and although we shall follow in publishing our articles the mode of our late

lamented masters and those that live and write for the great honor of our dosimetric school, we nevertheless do not expect to solve the whole subject. We shall be satisfied to have fixed the principal landmarks for our confrères, to serve them in their practice or in making further scientific researches.

First of all, what is Puberty? What are the limits of the pubertal period? What are its characteristic elements?

Puberty is one of the grand crises or perturbations of life to which a person becomes subject in passing the first quarter of his existence and reaching his then partial evolution. This period varies according to sex, race, and climate, and extends from the twelfth, or fourteenth to the twenty-second year of life. It is full of diverse physiological actions, which may be arrested, retarded, or perverted in their evolution by numerous physical or pathological causes. These causes will have the greater influence upon persons who are predisposed.

Puberty is characterized not only by sexual maturity, but also by the development of body and intelligence, by the appearance of new sentiments which are *en rapport* with that sexual maturity.

The privileged ones who are full of life, exuberant in health and strength, of straight, easy stature, with intelligent, lively looks, pass the trying period with a smile on their lips. And others again, who have been weakly up to that period may be surprised to find themselves increasing in health at that crisis and at the establishment of menstruation. In

* Translated from *La Dosimetrie* by Dr. Epstein.

Quinine most useful in acute forms of malaria; arsenic and the arsenates in the subacute and chronic.

Arsenic probably does not destroy the plasmodia; it stimulates blood making, relieves anemia and raises tone.

boys and girls there is a development at this period of an improved nutrition, owing to a series of multiple causes, among which is hygiene wisely understood.

Lastly, there is another class of young people, more numerous than the preceding, who, as we see by their complexions, are paying a heavy tribute to that perpetual exchange of molecules, whose vortex-like rush is the manifestation of life. With them the feebleness of the economy only increases; the menstruation, either painful, or difficult in establishing, disturbs the nervous system, or, when profuse, depresses the system. The growth is rapid, yet the nutrition defective and insufficient. Any too prolonged physical or mental labor beyond the strength of the subject, any infectious disease, any moral or physical traumatism, plays a principal part in determining the condition of the subject, in a majority of instances.

When called to treat a disease at that period of life and institute an exact physiological therapy, it is the first duty of the physician to get a clear idea concerning the phenomena which indicate the organic disturbances and which always precede the disease with which he is to contend. He ought to know that in puberty the osseous development, which was rapid in infancy, continues that development parallel with that of the reproductive organs. And when this growth is too rapid and the economy of the body had not constantly amassed the materials necessary to provide for it, then this increasing growth seizes upon the reserves necessary for it and leaves the economy impoverished and ruined. A state of ill health ensues; just when the body needs to be the richest in useful materials, the

entire economy falls into a torpor produced by the general disorder of the nutrition; then the nervous system does not act properly and there ensues the state which is called chloranemia, and from this arise all the disorders of the rest of the organic functions of the body. On the one hand the nervous system is suffering, and on the other, as a vicious circle, the blood becomes unfit to provide the nervous system with that kind which would enable it to exercise regularly the functions of the organism. Dyspnea without any appreciable auscultatory signs, cardiac palpitations, fatigue, capricious appetite, all these are incontestable proofs of the neurosis of the trophic nerves.

The radical hyposthenia characteristic of chlorosis reacts upon the making of the blood; the watery portion predominates over the cellular, the color is faulty, for the substratum of a great number of the globules is decomposed, and this results in the serum becoming rich in fibrin and poor in hemoglobin. Now this hemoglobin is the respiratory part of the blood globules, and if it is lacking in quantity there will always be disorders in the formation of the blood, because oxygen can not be absorbed in sufficient quantity. Lastly, the neurosis of the trophic nervous system joined to the quantitatively deteriorated condition of the blood provoke an arrest of lung development, and by consequence an embarrassment of the cardiac pulmonary circulation.

The passive increase of the cardiac volume, the dilation of the cavities, shows itself by the clinical signs of pallor, some degree of facial cyanosis, small and soft pulse, and the special vascular blowing sounds.



Remember that iron is valuable whenever there is anemia—especially useful in chronic malaria.

Iron arsenate is useful; valuable; combined with the quinine and strychnine arsenates it makes an ideal remedy for malaria.

According to the old adage: *Natura morborum curationes ostendunt* (The nature of diseases will indicate the cures.) it is the conception of the lesions of the general nutrition during the pubertal period which leads us to the rational and efficacious therapy and to what should be the dominant in the treatment to be instituted in all the diseases of that period. And first of all we must keep in mind the nutritive demands which the soil of the nerve-centers make, and which is phosphorus and sulphur above all else.

For the phosphorus we begin with ordering food that contains this element richly and join with it suitable medical preparations of the same elements which are so much needed for the cells. We shall see, further on, that these preparations must vary according to the different clinical demands of the case.

The hypophosphite of strychnine granule of half a milligram (gr. 1-137) is a nervosthenic *par excellence*, and is given from three to six granules a day, one or two before each meal. This medicament fulfills pleasantly and evenly the double purpose needed by the double elements of which it is composed; the phosphorus on the one hand, and the strychnine on the other, an indispensable vital key against the nervous asthenia.

Phosphoric acid, which is next in value as a medicament, acts admirably in puberty when given in very weak doses. Given simply diluted in ordinary water it seizes upon the chloride of sodium in the stomach, forming the assimilable phosphate of sodium, and restores to the debilitated organism a part of its constituent salt. This action is purely substitutive and it must be well borne in mind that the chlorosis of young girls is cured by infinitesimal doses of phosphoric

acid and iron; *Natura non fecit saltus* (Nature makes no leaps).

Given in dosimetric, one milligram, doses, and watching the susceptibility of the patient, it can be given up to five granules three or four times a day. The dose can be augmented gradually until the sufficient dose is found by examining the urine for acidity, whose normal degree is 4.55 with which it is to be compared. The administration of the acid with a view of gradually increasing the dose can be done by the following formula: Phosphoric acid 34 grams (one ounce and 30 grains), boiled water enough to make half a liter (pint), or it can be made more supportable by the addition of acid phosphate of sodium, which will make the solution more absorbable, thus:

Official phosphoric acid, 67 grams.

Pure phosphate of sodium, 125 grams.

Distilled water enough to make 1 liter.

Of this solution one teaspoonful is put in a glass of water, the half of which is taken at the beginning of each meal during the day.

Phosphate of sodium, or acid phosphate of potash can be given the patient; the first has the advantage of being specially useful to the blood serum, while the other is specially appropriated by the nerve cells. The combination of the two gave me excellent results.

Hypophosphate of sodium and the glycerophosphate of lime were much lauded, and these are no doubt able to furnish phosphoric acid to the economy, but this does not prove that it is superior to the simple acid for the economy. The acid glycerophosphate being of better taste than the phosphoric acid, might be used to relieve the general acidity. These acid salts are excellent reme-

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Hydrastine is said to equal quinine—by some people; it is a useful adjuvant, especially in convalescence.

Narcotine is another remedy which has been recommended in the treatment of malaria; rarely used.

dies, especially the acid glycerophosphates of sodium, because they possess the properties of the phosphoglycerates and exercise, moreover, when given in sufficient doses, a laxative and cholagogue action, which is not to be underestimated in dyspeptics who are always constipated. Then, too, the increase of the phosphates with a view to alimentation, which this remedy gives when taken with the drink at meals, will also allow to acidify the subject when his stomach is intolerant to phosphoric acid. The better preparations are the following:

Glycerophosphate of sodium, 90 per cent—70 grams.

Boiled water enough to make 250 Cc.

Twenty cubic centimeters contain 4 grams of glycerophosphates, and 0.50 centigram (gr. 7 1-2) of anhydrous phosphoric acid.

Sulphur.—The best means of giving the sulphur necessary for the nerve elements is, without contradiction, the sulphide of calcium, which monosulphide, chemically pure, and dosimetrically employed goes by the name of *Sulphydral* [i. e., in France; in the United States, it goes by the chemical designation of calcium sulphide.—Dr. E.]

There is no need of encomiums for a remedy which all the world knows, which to try once will be appreciated, and whose services rendered are not only very extensive, but very valuable. In doses of only one centigram (gr. 1-6) it is sufficient, as few medicaments are with that quantity, to produce a very appreciable action, when given two to six granules a day on the average.

The pulmonary blood making, which should engage the attention of the physician next to the blood deficiency in the nervous centers, is to be treated with the

hypophosphate of strychnine, aided by the addition of arsenate of strychnine. It ought to be well understood that strychnine augments the necessity of breathing, and that in poor people who cannot afford the expense of physical treatment, of which we will speak further on, this remedy can be relied upon to increase the amplitude of the respiratory oscillations of the chest.

It is certain that nothing will so benefit the pulmonary blood making, as ordinary, or mechanotherapeutic gymnastics of the chest, or methodic singing exercises aided by a regular residence at a suitable altitude below 2,000 meters (about one mile and a quarter). By these means we can obtain a normal increase of the chest dimensions and thus permit the lungs to acquire their needed development.

Indolent, lymphatic subjects will be benefited by a season of residence in a sulphur watering place above the sea level, as Bareger, where the atmosphere is favorable to the expansion of the lungs, which is one of the nutritive elements of nerve elements. Those who are not favored by fortune may find at home the same benefits, up to a certain degree, by using calcium sulphide and strychnine arsenate.

Cardiac debility, which announces itself by dyspnea, pallor, small pulse and heart murmurs due to the irregularities of capillary contractions caused by general debility should be treated by a union of strychnine arsenate, two to four granules, with feeble doses of digitalin, one to four granules. To these may be added the arsenate of antimony, two to six granules a day, to combat the fatty degeneration of the heart.

Spasms, suffocation, and all spas-



Eucalyptol has been used with some success in malaria; eucalyptus tree considered prophylactic in malarial countries,

Berberine is an excellent remedy to reduce the size of the malarial spleen; ergotin is also useful for this condition,

modic contractions demand the combination of: Camphor monobromide, two to six granules; hyoscyamine or daturine, one granule at one dose, repeated every quarter, or half-hour, or hour, or two hours, according to need.

The functions of the stomach will be helped with quassin and cubebin, two to five granules just before the principal meals of the day.

The regularity of hepatic functions will be aided by caffeine arsenate taken together with quassin.

Finally, intestinal functions will be assured by the proper use of a saline laxative, taken in teaspoonful or tablespoonful doses, before breakfast, and a few granules of jalapin taken before eight and 10 a. m., which will be about the middle of the digestive period, to aid intestinal peristalsis.

These are the general therapeutic indications constituting the dominant treatment of pubertal ailments, which we give in the following tabular statement:

RECAPULATION.			
Against blood poverty of nerve centers.	Phosphorus...	Strychnine hypophosphate.	
		Phosphoric acid.	
		Phosphate of sodium and potash.	
		Glycerphosphate of sodium.	
	Sulphur	Calcium sulphide.	
	For the poor	Strychnine arsenate.	
		Calcium sulphide.	
Pulmonary blood making.	For the rich	Respiratory gymnastics.	
		Respiratory mechanotherapy.	
		Methodic singing exercises.	
		Residence in high altitudes.	
		Residence in sulphur watering places of high altitude.	
Cardiac debility.....		Strychnine arsenate.	
Tonic for capillary system.....		Digitalin in feeble doses.	
Fatty degeneration of the heart.....		Antimony arsenate.	
Spasms and contractions.		Hyoscyamine, daturine.	
		Camphor monobromate.	
Stomach.....		Quassin, cubebin.	
Liver.....		Caffeine arsenate.	
Intestine.....		Saline laxative, jalapin.	

HEART DISEASE.

I have a curious case of heart disease—I can hardly make out a name for it, but I call it mitral incompetency with hypertrophy of the left ventricle. Negro,

Ipecac has been used to stimulate hepatic activity in malaria; small doses of emetine useful addition to calomel and quinine.

age 63, robust, had inflammatory rheumatism last winter. I was called to see him after a physician had told him he must die. Found him in a fit of extreme dyspnea. A hypodermic of morphine relieved that. On examination I elicited the following facts: Pulse 60 and very forceful. I had no objection to that except the slowness; rhythm is good. There is a soft blowing murmur which is heard also in the suprasternal notch, systolic in time. On one occasion I thought this sound had disappeared, but if so it returned; the sound is not very loud. Apex beat in the fifth interspace. Cardiac dullness normal in position and area so far as I could tell. There is some bronchitis. There was some edema in the feet and legs, but it has disappeared. I put this man on anasarcin, which I had tried before, and strychnine arsenate, enough in three weeks' treatment. The edema is gone, the dyspnea is gone and the old man walked four miles yesterday and carried back 17 pounds of bacon.

M. G. PRICE.

Mosheim, Tennessee.

—O:—

In mitral insufficiency the apex is usually to the left or downward, the murmur is systolic and loudest at apex and transmitted to left axilla and ankle of scapula. During compensation the pulse is full and regular; the left auricle enlarges. This is probably a case of aortic stenosis with mitral regurgitation as a sequence. You have pulsus tardus, enlarged left ventricle and the murmur, though not characteristic, is probably that of this condition.

Cactin, strophanthin, one granule of each, and strychnine arsenate, gr. 1-67, every three hours will be the remedies for this man. Keep up elimination.—Ed.

Like all other bitters, quassin has some influence in various forms of malarial disease.

Editorial Chat

BEFORE you stop, and lest you forget it, read the opening paragraph of "Practical Points," ad. page 62, and pick up a little enthusiasm.

"ON the square," therapeutic results can only be attained with exact remedies applied with exact knowledge. Alkalometry (active-principle therapeutics) supplies one, and right training with carefulness of application the other.

SOMEONE said, "Be sure you're right, then go ahead." Good advice! But I say go ahead anyway, and if you are not right have sense enough to know it and get right as quick as you can. The battle is half lost at the start to him who waits till he is sure he sees victory before he begins. To be "cock sure," all too often means defeat.

SUCCESS and estate are attained through transfer of commodity, this term used in its broadest sense; the true basis is profit or satisfaction to both parties to every transaction. The doctor's commodity is his ability; the choicer it is and the better he can apply it the more he is entitled to get, should get and can get in exchange. Keep up the quality, Brothers, let people know by precept and practice how good it is—and get good value in return.

PUNCTUALITY is an important element in professional success. To see the doctor coming at the time expected insures a warm reception and a sweet smile at the door, with the patient and the family in

the right mental attitude to insure good results. Then when you are late they will say, "Oh, he's coming. I know he'll be here. He's busy on something he can't leave or he would have been on time." This is one phase of a reputation which is worth hard work to acquire and sacrifice to retain.

Therapeutic Notes bids for proprietaryship of this old well-known, fully analyzed and understood remedy, as follows:

On account of the well-known tendency of digitalis and its preparations to cause nausea and disturbance of gastric digestion, we have diligently sought a method by which the drug might be deprived of its irritating property. We have succeeded to such a degree that we are now prepared to supply *Digitalone*, an asptic, non-alcoholic, non-irritating, and permanent preparation of digitalis. *Digitalone* is adapted for oral or hypodermatic administration, and as its strength is adjusted to a definite standard by physiological assay, its dose is uniform in any given case.

THE *Chicago Tribune*, through its Washington correspondent, and under date of September 20, is responsible for the following:

After three years of patient research two professors of Geneva, Switzerland, have discovered a new anesthetic which promises to revolutionize the practice of dentistry. In reporting this to the state department, Consul Liefeld, at Freiburg, Germany, states that finding that the nervous system was influenced by colored light the professors soon perceived, after experimenting with each hue, that blue had an extraordinarily soothing effect on the nerves. The consul says that a tooth may be painlessly extracted, with none of

the after effects on the system, by shutting up the patient in a dark room and exposing his eyes to a blue light of sixteen candle power for three minutes. This causes him to lose all sense of pain, although at the same time retaining his senses.

We hope this is true and that the possibilities of this discovery extend to minor general surgery as well.

ECONOMY with activity is the soul of prosperity; the economic possibilities of a practice with active principles is not among the least of the many things to be said in its favor—two to three per cent being an average limit of expense where one dispenses fully. On the subject of dispensing, the possibilities in financial result outweigh the financial expense for remedies a hundred fold.

HEALTH being physiological equilibrium, disease must be a departure therefrom, or physiological disequilibrium; consequently the right treatment for the sick is that which shall soonest make the crooked straight—"the smallest possible quantity of the best obtainable means (therapeutic, mechanical, surgical or what not), to produce the result desired." What's the matter with that?

IN passing a catheter—especially in those cases where there is prostatic hypertrophy and inflammation—do you remember to "ease" the point of the instrument over the critical point by pressing the finger of the other hand deep into the perineal tissue, or even entering the rectum, if necessary? Many a prostate has been injured beyond repair by a roughly-passed catheter, the point of which has entered the *sinus pocularis* and lacerated the middle lobe.

Bebeerine is used sometimes in malarial fevers, but is inferior to quinine; good in periodical pains.

IT HAS recently been asserted that caffeine is practically an antidote to alcoholic toxemia. One to three grains, given every two, three or four hours, will, it is claimed, cause the dipsomaniac to cease to crave alcoholic stimulation. The cessation of desire occurs under this treatment in about forty-eight hours. Now, if experience proves these claims to be well founded, the cure of one of the most distressing conditions which comes under the physician's charge will be practically easy. The craving once destroyed, it will be a hard matter to restore normal metabolism and reinstate nerve equilibrium. It is to be hoped that our readers who have an opportunity will test this matter thoroughly, not forgetting to report results, whatever they may be, to the CLINIC.

I HAVE come to think of the therapeutic agents outside of the local destructive agents, as falling into four great groups.

1. Those which dilate caliber through relaxation of enclosing fiber—blood vessels, etc.
2. Those which contract the same.
3. Agents that stimulate nerve activity and sensibility.
4. Those which obtund the same.

Various are the phases of each need, hence various are the expedients which may be adopted, and properly; but, as a matter of fact, what more can we do or do we do? He who best helps nature to accomplish these indications comes close to being the man for the occasion. Suppose you think it over and if you don't agree say so—and why.

READ the articles by Drs. Grubbe and Page upon the treatment of tuberculosis, in this number of the CLINIC. They

Euonymin was formerly a popular remedy for malaria; often used to advantage to supplement the action of quinine.

show the possibilities of some of the newer therapeutic methods. No doctor can afford to ignore the newer things; he should "read, weigh and inwardly digest" until he has got the best possible means at his hand for dealing with disease. Tuberculosis is a hydra-headed monster; it presents many phases and it is not possible to know too much about it. A fact that gives us cause for rejoicing is the hopefulness which inspires so much that is being written regarding its treatment. We know now that many cases of consumption can be cured—perhaps most of them if taken sufficiently early. We know, too, that intelligent practitioners cannot afford to ignore the basic principles of the active-principle idea. Now, Doctor, what has been *your* experience with this disease? We hope to have some articles on this subject next month and we would like to hear from you.

How our illusions do fate—and how our deluders do thrive during the period of our blindness. It is now said that the celebrated Keeley "Double Chloride of Gold" cure for alcoholism contained nary a trace of gold and that one Hargraves originated the treatment, instead of Keeley. One solution contained hyoscine, glycerin and a little coloring; another Magendie's solution of morphine; another pilocarpine; but none of the salts of gold, single or "double," were present. That useful metal was in the wallet of the compounder. Somewhere or other there was also any quantity of "brass."

An excellent method of occupying a spare half hour is to imagine some condition which might confront you at any moment, and then ask yourself just how

thoroughly you are fitted to cope with it. After you have exhausted your own resources (and too often you will be appalled to find out how slim they are) look up your current literature and see what others have done and are doing along the same line. You will learn a good deal and when the emergency does arise—as it surely will—you will find yourself well able to meet it, and instead of poor results or a failure you will score a success. Try the plan and see how it works.

A CERTAIN manufacturer, putting out an unusually elegant preparation made from the ordinary galenicals was surprised recently to receive a report of a case of poisoning, following the use of his remedy as directed. On looking the matter up it was ascertained that the method of dropping adopted by the user gave at least three times the intended dose with the result described. Could anything, next to the ordinary galenical preparation, be more uncertain than the drop or the teaspoonful dosage so commonly suggested? The only salvation from this is the well-known uncertainty of the preparations, which usually and fortunately carry less rather than more of the one or more principles on which the activity of most of them depends.

HAVING just returned from a hurried trip abroad, which included a few days in Paris, the following from the *Medical Times* very naturally attracted my attention:

It is a surprise to many to know that the great city of Paris has no garbage to dispose of, and that the most expensive and luxurious tables in hotels, restaurants and private houses systematically supply the viands of dining-rooms and kitchens



Leptandrin is another remedy esteemed highly by the eclectics in malarial and hepatic cases; may use with iridin.

Gentle exercise which produces vascular equilibrium is to be thought of in connection with insomnia.

of a grade lower than their own, and those of the second grade to a third, and so on until the nourishment of the city is tapped, sapped, boiled and broiled out of everything that has a fiber or amorphous paste in its composition. This is an illustration of the possible economics of a great city.

This is practically true and right worthy of imitation in this land of work and waste and worry. This exchange or, rather, this passing on, is in the hands of a regular appointed commission, under government supervision and control, who receive or take from the one and pass on to the other at a minimum of expense, the maximum of which is far within the limits of the good accomplished.



ALCOHOL IN CARBOLIC ACID BURNS.

For some time the fact that carbolic acid is rendered harmless by the prompt application of alcohol has been known to the profession, but few practitioners knew anything about the "why and wherefore." The fact of the matter is that alcohol and carbolic acid together form a nontoxic, nonescharotic substance, "phenatol" or ethylphenate. In the laboratory it requires three parts of alcohol to one of acid to produce this substance, so it is evident that if we would render a dose of carbolic acid harmless we must administer at least three times as much alcohol to the patient. In carbolic acid burns (external) the amount of acid which remains upon the skin is small and usually one thorough swabbing with alcohol proves amply sufficient. The effect is immediate and if alcohol is available the doctor need never fear to apply carbolic acid to any extent of surface.



Ellingwood advises the use of cornus in the atony of the gastro-intestinal glands of malaria.

In fact, in extensive burns of the second degree carbolic acid (pure) is one of our most useful remedies. In this connection it may be of interest to state that the nearer carbolic acid approaches absolute purity the less dangerous it is as an application.

BE A BUSINESS DOCTOR!

If you don't want to lose your business to the field of specialism (the very best and most profitable of it) fit yourself and your office to do the work—and do it! The time is past when the sick, especially those chronically ill, are to be long satisfied with "a lick and a dab"—a bit of medicine doled out, or a prescription written with no especial thought, and as one charges a shot-gun. The demand is for business doctors—those who make a business of their profession—those who are able to go to the bottom of what the trouble is and then are fitted and prepared to do the right thing, regardless of what that may be, medical, electric, surgical, manipulative, suggestive or otherwise. The better and broader and more business-like the doctor, the greater will be the demand for his services and the greater should his emoluments be. Doctor, you don't think enough of yourself.



SHALL WE OPERATE?

It is a question which is the most afraid of the knife—the average practitioner or the patient. The latter, when he suffers with piles, anal fistula, hernia, or what not, falls a ready victim to the quack, because his family doctor has told him that an operation is necessary—and worse than all, often adds, "We had better call in a surgeon," the mere mention

Gelsemium was at one time a favorite remedy in malaria, both as an adjunct to malaria and alone.

of a surgeon being enough to scare a two-hundred-pound man into fits. If the doctor more often quietly and as a matter of course examined the patient, gave him some temporary treatment, and appointed an hour for injecting the hemorrhoids, hernia or what not, and at the same time impressed upon the sufferer the fact that he could be cured, practically without pain, he would prosper better. It will be noticed that all the advertising quacks make a point of announcing that they cure "without the knife" or "without operation." This is why they are busy and rich. The practitioner must learn to operate without "operating," so to speak; he must learn to conquer the quack by adopting and absorbing his methods and doing better work than he is able to do, and for reasonable fees. Learn every modern method of treating common disorders and treat them yourself—and so far as possible "without the knife or pain."



"GOOD" DIGITALIS.

At last we have an opportunity of obtaining a really good, dependable article of digitalis. A pharmacist writing to a California medical journal says that in England there is a firm of dealers in botanic drugs who grow their own digitalis; that it is grown right, dried right, and shipped right, and that any druggist who desires can really secure these goods. And give his customers a reliable brand of digitalis.

What a chance! One good brand of digitalis in existence, only about six thousand miles away; and if your druggist happens to know this, and will buy this brand, and properly make from it



Echinacea, so much praised in recent years for septic conditions, is also said to be good in malaria.

his tincture, and properly preserve it, and it doesn't deteriorate, you'll perhaps get the effect you want after you have given it a few times and learned whether the cardiac tonic glucosides are preponderant over the digitonin depressant, and how great is the quantity of the combined tonics, perhaps you may in time learn whether the slow and dangerous tonic digitoxin, or the rapid and safe tonic digitalein, the soluble latter or insoluble digitalin, predominate.

And this is "scientific" therapeutics!



EDEMA OF THE LUNG.

Owen has recently called attention to the value of strychnine in this condition. He has seen marked and speedy improvement follow the hypodermic administration of this agent, so much so that its use has become a routine with him. Atropine as a stimulant to the respiratory center is indicated by theory, and is without risk. The use of oxygen is obvious.

Continuous dosing with alcohol is useless if not injurious—surely that is drawing it mild enough!

The relief afforded by venesection is often very marked. Diuretics are useless; purgatives of value though not as prompt as venesection; pilocarpine contraindicated by the state of the heart—he says nothing of its sometimes inducing pulmonary edema directly.

The dilatation of the heart may require the tensors of the digitalis group, if the engorgement of the right side has been previously relieved.

The author hardly seems to grasp the fundamental fact that the volume of the blood must be quickly lessened, and its distribution equalized. We have a cau-

Garlic, "the poor man's camphor," is the latest remedy to be suggested for the treatment of tuberculosis.

tion to give as to the indiscriminate use of strychnine. Once when this drug had been advised in consultation, the attending physician gave it in increasing doses without relief, till the patient died in a convulsion. Here venesection would have saved the life.



CONVULSIONS MAY CAUSE EPILEPSY.

It is now acknowledged that any convulsion, be it ever so light or simple, may produce cerebral hemorrhage. That means, of course, that epilepsy, paralysis, idiocy or insanity may be the ultimate result.

For a great many years it was held that dentition alone never causes convulsions, and when these occurred, search was made for cerebral, gastrointestinal or reflex causes. Today it is generally granted by well-informed practitioners, that the systemic disturbances caused by the cutting of teeth are profound enough to cause convulsions, and we have already pointed out the fact that such convulsive seizures may be the *avant courriers* of the most appalling and incurable diseases.

While it is probable that fully one-half of the healthy children cut their teeth without noticeable disturbances, the other fifty per cent are affected more or less profoundly. Each generation, as it arrives, is less fitted for the struggle for existence. Our flour is bolted too well—we take too much pains to prepare our food so that it shall require little chewing. As a result we lack the salts which are required to make teeth and, needing teeth little, these hitherto necessary portions of our anatomy appear reluctantly and are of poor quality.

Do not forget the indication to "equalize the circulation" with aconitine; it applies also in malaria.

Nevertheless, teeth must be "cut" for teeth we *must* have (if only for cosmetic purposes) and so it behooves the family doctor to take extra care of the children while teething. Teething *does* cause convulsions and any convulsive seizure may lead to epilepsy, idiocy, paralysis or insanity. So keep an eye on the little ones when they cut their teeth, Doctor, and don't hesitate to lance the inflamed gum or to give a brisk purge when it is needed. A few strokes with the gum-lancet or doses of magnesium sulphate may prevent the babies under your charge from developing later into epileptics.

Voisin says that "Epilepsy is above all the malady of infancy. It makes its first appearance at birth, perhaps, but generally it is at the moment of dentition that the first manifestations present themselves." Which means to say that epilepsy appears when the *causa causans* exists. The cutting of the teeth is usually the first phenomenon which profoundly affects the new life. The nervous and circulatory derangements which accompany the condition cause convulsions and then and there the lesion may occur (whatever it is) which renders the unhappy infant an outcast for the rest of his days.

Bear in mind the fact that the teething infant requires intelligent care and that a convulsion at that period is a matter of grave importance; the best "treatment" being unquestionably *prevention*.



THE DRUG HABIT AND ITS DUPES.

The drug addict is not by any means the only dupe discoverable in the premises. To "the man outside," looking on with a calm, dispassionate gaze, the doc-



After all, you should remember the importance of making malaria untenable in your community; go after the mosquitoes.

tor who says he cures the habitu   is quite often as totally warped in his mentality. Leaving out of consideration those gentlemen who make it a business to cure the morphinomaniac (at so much per maniac), fees strictly in advance, there are many estimable gentlemen who believe that they can and do cure such cases. That they are woefully mistaken they discover (or if *they* do not, the patient does) later on.

The reason for their failure is not hard to find. They start out with a wrong conception of the situation and try to substitute for the craving for one drug, the effect of another. A recent writer has pointed out the failures which followed the announcement of Merck that codeine was a remedy for the morphine habit? The practitioner who would like to cure such cases jumped at the new remedy and rejoiced when he sent home his morphine people using no morphine, it is true, but with the codeine habit fast upon them. Others tried heroin, with like result.

Today, the great mistake is being made of paralyzing men with hyoscine so that they do not feel the craving for morphine. The latter salt is withdrawn *in toto* and, after a week without it, the patient, buoyed up by tonics and still half hypnotized with hyoscine, is discharged—only to relapse, after a time, into the old slough.

Divesting the subject of all the twaddle which has been thrown around it, and considering it as we would any other morbid condition we find that the morphine addict is semi-paralyzed. That is to say sensation, function and mentality are numbed and reduced fifty per cent. Excretion, secretion—every vital

process—is retarded more or less. Not all the time, it is true, but most of it.

The man who uses morphine has every organ of his body narcotized for a certain time after taking his dose. Then, as the effect passes off and the natural processes recommence, he feels discomfort and hastens to take more of the deadening drug. After a time anything approaching the normal activity of any organ or function strikes him as abnormal, painful, and it is for this reason that he "suffers" when the drug is stopped. As is natural, after a time the system adjusts itself to the condition and works only under the influence of the drug, at half speed, so to speak. When the effect of the last dose taken wears off everything goes "at sixes and sevens;" water pours from the eyes and nose, the wretch sneezes and yawns and the paralyzed nerves (motor and sensory) refuse to control or be controlled.

Give another dose and in a few minutes the victim returns to a state of comparative well-being. Naturally all this time waste has been dammed back—excretion has been stopped and the minute the unnatural balance is disturbed, these are absorbed and we have symptoms of toxemia.

Now, to stupefy a man with one narcotic in order to withdraw another from his system is childish, when you really think the matter over.

The specialist will say: "Oh, but we only do that while we eliminate." But how can you eliminate when the system is under the influence of *any* narcotic? And how can you guarantee that after the effect of the drug with which you saturate his body has worn off he will not still require some agent to so benumb his faculties that he will not be uncomfortably aware of the ordinary life processes?



Watch the experiment of sanitation on the Panama canal. Will Col. Gorgas rid the canal strip of malaria?

Wallace says that in the hospitals provided for the sick at Panama there are as many attendants as there are sick.

That is, in brief, the position of the drug addict. He has so long numbed his senses that he can only tolerate perfectly normal processes when half unconscious. He lives in a state of semi-anesthesia. Withdraw the drug, and digestion, circulation, peristalsis, secretion and excretion are one and all as disagreeable to him as the knife of the surgeon to the patient awakened from his ether sleep.

There is just one safe and really sure method of rectifying the damage: Clean out the system and see that each vital function is being carried on normally, or as normally as is possible, and at the same time with infinite care and patience reduce the amount of the drug taken till the victim is able to hear the sensation of living.

The last dose is always the difficulty. The mentality of the patient has suffered as much as his physical system. The mere knowledge that he has not had morphine will cause him to suffer mentally, and this suffering will soon assume such proportions that he would sell his soul, his wife and his child, to procure one dose of the drug.

Never let the man know when he takes the last dose. Give as little as is possible and let the patient think that he *can* get more if he needs it. Substitute codeine for morphine towards the end, and heroin for codeine later still, all the time eliminating, stimulating digestion and sustaining the circulation and nerve force. The dosage of each opium salt is steadily reduced till practically nil. After three days without any having been given, tell the patient that he is practically free and that you will only give him a dose if he absolutely needs it and asks for it. If he is any kind of a man he will not ask, unless his mentality makes him suffer. Then in

place of the opiate give a dose of strychnine and perhaps phosphorus. Or if a hypo is called for, use the strychnine alone.

The chief difficulty is to really clean out the system without causing further debilitation of an already debilitated patient. This must be done, however, and at the same time stomach, heart, nerve-system and brain will need each the appropriate attention.

The morphine addict needs the constant care of an acute diagnostician, an excellent therapist and a tender-hearted but firm and conscientious man who must possess moreover personal magnetism of no mean order.

* * *

DOCTOR! DANGER!! DODGE!!!

We are just in receipt of advance proofs of an article to appear in the *Critic & Guide*, of New York, such as is calculated to make every doctor stop and think. If you do not receive this journal write for it and read the article captioned "Are Medical Men Easy Marks?" It is one of the most startling revelations of the two-faced way in which all-too-many people treat the medical profession that ever came to our attention.

It is not enough to rob us of our rightful substance by soliciting our business away from us through absolute and abjectly wicked misrepresentations to the people, offering them quack medicines and impossible cure-alls, but now they seek to make "door-mats" of us by asking us to use, recommend and dispense their wares ourselves. What duplicity! Shall we submit to being mulcted of millions and then add to these ill-gotten gains by patronizing the same people ourselves. Are we "easy marks"?

* * *

At Panama the laborers are compelled to sleep under mosquito netting and an effort is made to kill all mosquitoes.

Wallace, engineer of the canal, predicts that the labor problem will offer no difficulties; better sanitation, more laborers.

GLEANINGS FROM FOREIGN FIELDS

Translated by E. M. Epstein, M. D.

DOSIMETRIC TREATMENT OF PURPURA.

THE subject of purpura reminds me of an old record of cases by a French dosimetrist, Dr. Berruyer, of Nantes, whose description and treatment are and were successful, and which can well be recommended to our readers.

Purpura is an unfrequent affection, and Dr. Berruyer met with two cases. In the kind of purpura which is apt to be proteiform, the skin may become affected with an oozing to which was given the name of "bloody sweat." At times these are simple petechiæ, and at another ecchymoses, or patches of a more or less deep purple color.

Bloody sweat may be a symptom of other affections also. Petechiæ and ecchymoses are more frequent than purpura, but are purely symptomatic of other diseases. Purpura is an external manifestation of a well-defined affection according as there is, or is not, bleeding connected with the purple patches (purpura simplex, purpura hemorrhagica).

Among the general symptoms which accompany purpura, the hemorrhagic are the most intense. Together with a general feeling of illness and lassitude, there are also precordial anxiety, depression of spirits [*Hypothymics*—I think from the Greek *hypo*, under, and *thymos*, spirits, courage.—GLENER] and the fever is more violent. Sometimes diarrhœa supervenes, and more often constipation.

Other symptoms resemble those of anemia. The duration of this affection is from five to seven weeks.

The treatment differs according to the condition of the patient. In sanguine, vigorous individuals, the treatment ought to be more antiphlogistic than that to be prescribed in more feeble subjects, in consequence of errors in diet, or bad hygienic conditions.

The two cases Dr. Berruyer had, yielded rapidly to dosimetric treatment, consisting generally of digitalin (Germanic), aconitine, seidlitz, tannic acid, phosphoric acid, and ergotin.

CASE I. Mrs. M., aged forty-five years, of strong constitution; had two healthy children. She had never had any but very slight illnesses. In consequence of excessive labor and prolonged night vigils she felt herself weak. Soon after there appeared on the skin reddish patches which did not disappear on digital pressure. The patches were round and resembled small blood drops, widely disseminated. The skin between the intervals of the patches were not altered in the least. The lower limbs were swollen and very painful. The fever was intense, the head heavy and dull, and appetite entirely failed.

Treatment.—The seidlitz salt, perchloride of iron, tannic acid, phosphate of calcium, caffeine, baths with Penne's salt. In the second period of treatment he gave iron, quassin, and strychnine. The cure was accomplished in forty days.

After two years, being perfectly well, the same woman was taken suddenly ill with a chill and cerebronervous symp-

toms; intense headache, ringing in the ears, insomnia, agitation, delirium, prostration, then a catarrhal condition of the eyes, nasal cavities, and bronchii. No appetite, no abdominal pains, but a cutaneous eruption appeared on the sixth day, forming pretty large subepidermal ecchymotic patches on the trunk and extremities, lasting about ten or twelve days. The whole course of the sickness lasted from the beginning of October to December. The cerebral and ataxic symptoms lasted thirteen days. The general condition of the patient, as well as all the symptoms, were grave enough to make us fear that her end was near. But convalescence rapidly made its appearance, after about thirty-five days of pretty disquieting and alarming conditions.

The early appearance of the cutaneous eruption, preceding the febrile phenomena, might have made us consider the sickness as an exanthema. M. Dechambre raised the question in the *Gazette Hebdomadaire*, whether we have not confounded sometimes this disease with typhus, or with some severe case of measles. Dr. Berruyer is unwilling to decide.

This woman had, a year ago, an attack of purpura, and after a complete recovery, relapses again with typhus symptoms, while there is no epidemic of this disease, in Nantes, where she resides. The diagnosis is quite embarrassing and the cases may, indeed, be confounded. Here we have a person who lives in a proper house, and whose habits are absolutely healthy. There are no abdominal symptoms in this case, nor is there the abdominal typhus eruption. Was this sickness a typhoid fever complicated with the patient's previous predisposition to a

hemorrhagic purpura, reappearing as a result of her general condition?

But be that as it may, this grave disease yielded to a well studied and energetic dosimetric treatment.

CASE II. Madame G., twenty-four years old, strong constitution, no previous sickness, was suddenly taken with fever, depression of spirits (*hypothymies*), cardiac troubles, and neurasthenic condition. Bloody patches appeared, disseminated all over the body, especially before and after the menses. The condition was sensibly aggravated by edema of the legs. There were blowing sounds of the heart and carotids. There was also intermittent fever which recurred violently every two days at precisely the same hour. The physicians that were called prescribed a light treatment; light purgations from time to time, wine of chinchona, and told the patient that the affection treated in this way would take about eighteen months, at least, to get well.

Madame G. got frightened at this prognosis and called for Dr. Berruyer, for his advice. A minute examination showed that the patient, whose parents are rheumatics, had slight cardiac symptoms of rheumatic origin. The urine showed traces of albumin, two parts in 1,000. The lower extremities were swollen, and the edema reached up to the lower parts of the thighs. Petechiae were numerous, of an equivocal nature, and disseminated over the thighs, hypogastric region, superior extremities, mucosa of the eyes and mouth. There were also other sanguinous ecchymotic suffusions reminding of scurvy. The patient complains of violent pains in the region of the kidneys. Micturition is painful and infrequent. Constipation obstinate. Noc-

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What is your experience concerning the mosquito? Have you studied the anopheles of your community?

According to *American Medicine*, Vermont would seem to be entitled to the palm for healthfulness.

turnal sweats profuse. Insomnia, nightmares, repeated consecutive prostrations. The usual state presents alarming nervous agitation. The previous treatment had no effect whatever. To meet the symptoms related above I prescribed seidlitz salt every morning, interrupting according to my own directions; also granules of salol, digitalin (Germanic), strychnine, hyoscyamine and quinine.

After obtaining the desired salutary effects from this medication I prescribed quassin, strychnine, tannic acid, wine of coca-kola, hot baths, and granules of camphor monobromate. Forbade salty meat, fish and shellfish. Ordered vegetable diet, boiled milk, oatmeal. Granules of calcium phosphate, dry friction and massage.

Six weeks after this treatment was instituted the patient herself recognized the rapid amelioration it produced in her general conditions. A few days after that she resumed her usual ordinary habits of life and occupation. She had no relapse.

I regard, therefore, the dosimetric treatment of this fugacious and rebellious affection as one that is sure and rapid in any complications.

The reader will find useful hints on the subject of purpura in *American Alkalometry*, Vol. 1 pp. 646, 647. In Vol. 2, pp. 753, 754, and in *THE ALKALOIDAL CLINIC* for 1902, p. 700.



PURPURA IN CHILDHOOD.

Purpura in childhood was the subject of Voelker before the Medical Society of London, Oct. 26, 1903. We must distinguish between idiopathic, symptomatic, and latent forms of purpura. The first is



Tuberculosis is rapidly disappearing in Vermont; in 1886 there were more than 700 deaths from this cause, in 1903 only 439.

quite rare, and is more frequent in girls. Symptomatic purpura is more frequently met with in children than in adults. It may appear after the administration of iodide of potash, quinine and ergotin, after whooping-cough, measles and other febrile diseases, and after endocarditis. It may also have its cause in chronic renal diseases, cardiac valvular affections, malignant neoplasms, especially sarcoma, leukemia, icterus, hemophilia and rheumatism.

We can distinguish four variations of purpura: (1) Simple purpura with involvement of the skin only; (2) rheumatic purpura, with coincident rheumatic pains in the joints; (3) hemorrhagic purpura (morbus maculosus) with bleeding from the mucous membranes, and serious general phenomena; (4) Henoch's purpura, in children, with frequent relapses, articular pains, diarrhea, vomiting, and ventral pains. A close relation between purpura and rheumatism does not exist. Therapeutically commendable are rest in bed and opium in diarrhea. Calcium chloride has no effect.



IMMUNITY AND PROTECTION AGAINST DISEASE.

Dr. Arth Klein sums up conveniently the subjects of immunity and protection against disease. Immunity may be natural or acquired. The first, which may also be called natural resistance, extends to entire classes of animals, to individual races, and individuals. Thus the human being is resistant to infection with rinderpest, swine cholera, glanders, and chicken cholera. Negroes are more resistant than the whites to syphilis. The field mouse is refractory to glanders, but so are not the house and white mouse.



In 1901, 415 died from senility in Vermont against the 439 from tuberculosis. Old age vs. tuberculosis!

Natural resistance may be only relative, for a large dose of the infecting material, or a peculiar manner of infecting may overcome that resistance.

Acquired immunity may be the result of either a naturally-occurred disease, or of an artificially-induced immunization.

The pathogenic effects of bacteria on the animal body are of two kinds, septic and intoxicative. In the septic the bacteria spread throughout the organism, and act besides by means of the poisonous products of their stuff-exchanges (toxins), and by the intracellular poisons (bacterial proteins), which are set free at the death of the bacteria. In the intoxicative kind, the bacteria remain limited to the place of the infection, but they secrete toxins, which operate on the entire organism (tetanus, diphtheria, cholera). Accordingly we have to distinguish two types of immunity, viz., bacterial immunity and toxin immunity. The toxicity of some bacterial toxins surpasses anything known before. So for instance is the fatal dose of a strong tetanus toxin for a horse 0.00025 cubic centimeter, (equal to between gr. 1-2675 to gr. 1-3000).

For the solution of the problem of acquired immunity there were proposed two theories, viz. Phagocytosis and the theory that the principle of that immunity is to be found in the fluids of the body.—*Wiener Med. Wochenschr.*, No. 34, p. 1,586, 1904.



CEREBRO-SPINAL CIRCULATION.

Cathelin is of the opinion that the cerebrospinal fluid has a circulation similar to that of the blood. It is secreted by the choroid plexuses and is gathered



Grand Isle county is the healthiest in Vermont and probably in the United States. In 1903 only two died from tuberculosis.

in the arachnoidal sac, thence it is taken up by the blood vessels [The GLEANER thinks this is a mistake; it must be the lymph vessels] and brought by the thoracic duct into the left subclavian vein, thence it enters into the great circulation and brought back to the choroid plexuses by the afferent vessels. [The GLEANER is chary in accepting the doctrine taught here. If the "blood vessels" absorb the cerebrospinal fluid, which vessels must be those that ramify in the walls of the arachnoidal sac, then the fluid is already in the general circulation and need not be brought into it by the thoracic duct. And if it is not the blood-vessels but the lymph-vessels that absorb the cerebrospinal fluid, then my difficulty is where those lymph vessels begin in the walls of the arachnoidal sac, as I am loath to think of "irregular gaps in the tissue," which gaps we are told are the beginnings of the lymph stream. May there not be stomata in the arachnoidal sac similar to those discovered in the peritoneum? I would be thankful if any of my readers would present this question to a teacher of histology, and I be set aright on this score.]—*Ibid.*



Gastric ulcer may, according to Hayem, begin on the outside of the gastric wall, which may penetrate through all its layers down to the mucosa. This is a form of gastric ulcer that has not been described hitherto. In most cases of that kind there is also an ulcer on the mucosa. These external ulcers show clearly that the gastric juice has no part in the formation of the *ulcus ventriculi*, and that the cause of it must be sought in the nerve endings. These cases really deserve the name: "*Mal perforans ventriculi*."

A man sued an Iowa hotel-keeper for selling him "dirty food" which made him sick. Why not? The idea is good.

MISCELLANEOUS ARTICLES

MY FIRST EXPERIENCE WITH THE ALKALOIDS.

I T may perhaps be well to state here that I am not a "died in the wool" alkalometrist, but that there are certain alkaloids that give better results than the whole drug, and also that certain conditions that respond to them better than to the galenics, I have been able to demonstrate, my first demonstration taking place with "my first experience with the alkaloids."

A number of years ago I received a sample copy of THE ALKALOIDAL CLINIC. The general character and make-up of the journal, especially the "Query Department," impressed me favorably, with the result that a dollar bill was enclosed in an envelope, with a request that the CLINIC be forwarded to my address for one year, and the little pocket case of granules be sent me, all of which came to hand in due season, and the pocket-case was forthwith tucked into my left-hand upper vest pocket.

I carried it with me all the time, not especially for use, but thinking it might come handy sometimes to make a "bluff" with, when I might be caught without any medicine with me. With the exception of occasionally taking it out and looking at it, it remained in my vest-pocket for about a year, without a single dose being taken therefrom, when the following incident took place:

I was called one cold, stormy night to attend a case of confinement, the family living about three miles away in an old log house that had for many years been abandoned, but was now occupied by this

family. They were of the poorest poor, ignorant and had a large family of children, dogs, etc., in fact they lived in a classical hovel with the tallow candles and squalor, so many times portrayed in these columns by different writers. I found two neighbor women of better grade in attendance.

The child had been born, but immediately after delivery an alarming hemorrhage had taken place and when I arrived I found a stream of blood going down through what clothes and rags were on the bed, and clear across the floor to the opposite side of the room. I also found an undelivered placenta, a pale, emaciated and completely exsanguinated woman, who was continually sighing and calling for water.

Here was a condition demanding immediate action. I hurriedly washed my hands, thrusting hand into the uterus and delivered the placenta. I again introduced my hand, swept out what remnants and clots I could, tamponed the uterus and vagina, administered ergot and strychnine hypodermatically. The woman was pale, bloodless, eyes set and respirations jerky and five or six to the minute. I considered her dying, and so informed the attendants. I left more medicine with the injunction that if she passed away to let me know, and went home for a few hours' sleep.

Morning came and, not hearing anything I again visited my patient, and found things much as I had left them a few hours before. Although the womb

seemed to have contracted, oozing of blood continued. I again firmly tamponed the vagina, injected normal saline solution, and continued ergot, strychnine and digitalis. I again visited the patient in the evening and but a spark of life remained, having to look closely to see that a spark did exist.

Here was a case in which I was rapidly being beaten. The arch enemy of the human race was out, winning his victim in a last deadly embrace. I had tried the latest, and most successful treatment without success, and I must soon retire from the battlefield, beaten.

I thought of my little case of granules. If my time-tried and tested remedies had failed, why not try the granules? I confess I felt somewhat guilty in making the trial, for my conscience said I was removing from my patient what had cured others, for something I knew nothing about, and in which I had but little faith, but my patient was dying.

I had been a close student of the CLINIC and my memory was fresh. I took out the little case and placed in three separate dishes fifteen granules each of digitalin, strychnine arsenate, and together hyoscyamine and glonoin, one of each to be given every half hour.

I went home expecting never to see again my patient alive, but morning came and as no word had arrived I visited my patient again. As I stepped into the room she looked up and smiled. The woman who gave the medicine also smiled, and said:

"Doctor, when I began to give those little pills she began to get better right away."

She was better and made an uninterrupted recovery.

Remember that indigestion is a frequent cause of night restlessness, especially in children.

I have since been a friend of the alkaloids and the "habit" seems to grow, for some time ago I exchanged my nine-vial case for a twelve-vial one with a few "on the side," and if symptoms prove for aught I would not be a bit surprised to find myself carrying a twenty-four-vial one before many moons shall pass away.

W. H. BALDWIN.

Quincy, Michigan.



PLAGIARISM—A PROTEST.

Not long ago there appeared on the market a new preparation of silver that was claimed to be a marvel of chemical skill and extremely valuable as a specific in certain selected cases. This remedy was immediately taken up by physicians and surgeons all over the country, was widely advertised, and numerous brochures were written extolling its worth far and wide.

Among these articles, which were scattered everywhere indiscriminately, was one in which the writer gives a correct and concise picture of gonorrhea in the male and female, ending with the display of five or six cases, showing the treatment which "I have picked at random from my case book."

I read the article carefully and was struck with the wording. It seemed familiar and brought back the remembrance of a standard work used during college days. A good cigar stimulated my mental action, and my "thinking cap" being firmly adjusted, I became convinced that the article was plagiarized.

Slowly there appeared, in the smoky atmosphere about me, a vague, indistinct form, which gradually grew in shape and likeness of one whom I had known well.



Kitasato, Japan's bacteriologist, is visiting the United States. His name is connected with diphtheria, tetanus and plague.

There appeared before my eyes the face of Prof. Ashurst, of the University of Pennsylvania. I turned to my bookcase and picked out his work on Surgery. Upon examining the chapter on gonorrhea, I beheld the original, of which this article was a copy, word for word.

From the pen of this writer there issues from time to time briefs on many and diverse subjects. Copies are made and sent to the medical profession throughout the civilized world. Many cases are, no doubt, treated along the lines laid out by our plagiaristic friend, and much harm has been accomplished. The evil lies in the fact that if an individual submit that which is the result of another's experience, as his own, will he hesitate to manufacture instances where necessity demands that he prove his point?

Most emphatically, *No!*

A physician in active practice cannot find the time to investigate, except in so far as the practical use of any specific appeals to his judgment as effective. He is guided by the conclusions of experts, and must necessarily rely upon their honesty.

For these articles this physician of wide experience (?) has doubtless made many dollars. The firm that manufactures the drug has made many more. It is simply a way of obtaining money under false pretenses, and it should be punished.

Too much cannot be said against this practice, and radical methods should be employed to abolish it. If the manufacturers of these many drugs would take the time to look more carefully into these pen products, they would be able to render as great a benefit with less culpability to themselves. There is, to my mind, no reason why an article should not be writ-

ten on any drug or combinations of drugs, provided it does good and so long as the writer can show and prove his case records. But, in this instance, the writer's statements are not verified, nor are his suggestions followed by good results to his patients. My own experience, when accepting his data, has shown that only harm does and will follow.

Indeed, a physician should not only profit by such articles, providing he is honest in his work, and thinks that he can benefit mankind by his own experience, but also recommend to others the efficacy of such discoveries.

This is a subject that opens up a wide range of possibilities and much good can be done, not only for the profession specifically, but for the manufacturers generally, provided we show up such men as the above.

It is my intention in submitting this protest to your honorable bodies, that the medical profession at large may be put on their guard and be raised in the estimation of the public.

WILLIAM P. KINGSBURY.

New York City.

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Too much cannot be said in condemnation of the flagrant example of plagiarism which Dr. Kingsbury quotes. These instances are becoming altogether too common. Not long ago a distinguished Chicago physician and genitourinary specialist exposed the wholesale lifting of a chapter from his book, which had been republished as an original article by a southern physician in good standing. Still more flagrant was the cribbing employed by a well-known New York physician, who some years ago contributed a chapter to a large text-book of multiple authorship, published in Philadelphia. It



Ramsay says there is not a tenth of an ounce of radium in the world. This would have more energy than 250 tons of dynamite.

Remember that rectal injections of salt solution will relieve the excessive thirst following abdominal operations.

was stolen—and still protected by copyright. The publishers were compelled to destroy the entire edition. The petty thieveries practiced by the professional contributor of fake "write-ups" are so common that it is strange that the manufacturers do not begin to "catch on." Recommendations from men like these are worth nothing. One is almost compelled to regard the cases which they report as fictitious. We certainly do stand in need, as our correspondent suggests, of clean, clinical reports of proprietary remedies, many of which have proven of the utmost value and would be hard to replace. But let us have no more of this faking.—Ed.



HERPES ZOSTER, ZONA OR SHINGLES.

This acute inflammatory affection of the skin is, without doubt, one of the most troublesome diseases of the skin with which the practitioner comes in contact. The characteristic lesions, in the forms of groups of vesicles on an inflamed base, scatter irregularly along the course of the cutaneous nerves, usually the intercostal, giving rise to a series of obstinate symptoms. The most troublesome symptom to combat, without resorting to the use of opiates, is that of pain.

Herpes has been known to follow closely upon hemorrhoids. I do not know of any existing relationship between the two diseases, but I recently treated a case in which the two conditions existed at the same time. It is usually met with in individuals in whom there seems to be predisposition to intercostal neuralgic attacks and also to attacks of pleuritic pain.

The treatment of the eruption is a very



Remember that washing out the patient's stomach before he awakes from the anesthetic will relieve the nausea from ether.

simple matter, but in the case referred to, here was the difficulty, to relieve the neuralgic pains, and the patient's attempts to secure rest at night were most unsatisfactory. Local applications of hydrogen peroxide were made with the result of relieving the pain. This remedy was resorted to after many other applications had been tried, without results. After two weeks and a course of diathetic treatment, consisting principally of the triple arsenates, the case terminated favorably. One important reason why the arsenates, notably the arsenate of quinine, are useful in the above, is that they are sedative and tonics to the great sympathetic.

In traumatic affections of the urinary passages the administration of quinine hydroferrocyanate or arsenate can not well, if ever, be dispensed with, because the ganglia of the nervous plexuses are found to be hyperemic and softened, as indicated by irregular shivering and alterations of body heat, shown by alternating fever and sweating.

W. C. BUCKLEY.

Philadelphia, Pa.



A CASE OF TETANUS.

F. C., male, age eleven. On July 15 a horse stepped on the great toe of his left foot, causing a slight abrasion which was not regarded as anything serious. Thirteen days after the injury the boy was taken with a stiffness of the muscles of the jaws and neck. He was at this time away from home and a doctor was called to see him, but he thought the condition was due to a cold which the boy had contracted. Continuing to grow worse, he was brought home on August 1, when I saw him for the first time. The

It is well to remember in gall-bladder operations that jaundice increases the tendency to hemorrhage.

following condition was found at that time:

Tonic spasm of the muscles of the jaw and neck, and to a certain extent also of the muscles of the trunk and legs, but none of the arms and hands. There were also clonic spasms, especially of the muscles of the back and chest, about every five minutes, which caused him to cry out and which also interfered with his breathing. The bowels were constipated. The temperature was normal, urine normal. The patient was bathed in perspiration.

The above condition progressed till August 3, when there was complete tonic spasm of all the body, except the arms and hands, which were not involved at any time. The symptoms remained about the same until August 10, when he was able to move the great toe of the left foot a little. Since then there has been gradual improvement and the boy is now up and around the house.

Treatment.—The first night I gave him calomel, gr. $\frac{1}{2}$, every fifteen minutes till three grains were taken, followed next morning by a saline. Morphine was given to counteract the pain. Suspecting tetanus, I inquired if he had had any injury, but the parents did not think it worth while to mention the hurt on his toe. Next morning I saw him again and concluded I had a case of tetanus on my hands. I sent immediately for antitoxin and gave 10 Cc. hypodermatically, repeating next day, then every other day until the clonic spasms ceased altogether. I used 80 Cc. altogether.

By August 3 he was not able to swallow anything except a little water, sucked through a straw passed in where there was a tooth out. For a week we relied altogether on rectal feeding and medica-

tion. We gave him two ounces of milk and egg or rice water with two grains of calcium sulphide every three hours. To this were added ten grains chloral twice daily to control pain and strychnine sulphate, gr. 1-40, three times daily.

After August 5 we began rubbing him with cocoanut oil, but when our supply of that was used up the father said he had used skunk's oil a lot for stiffness of the muscles, so I told him it would be all right if he could stand the smell. On August 10, as there had not been any movement of the bowels for six days, we gave him an injection of two ounces of the oil at 8 a. m., and repeated it at 2 p. m., and shortly after had a very free evacuation of the bowels. Same treatment was continued until convalescence, when it was discarded and tonics given.

In regard to the above, I wish to mention the effect of rubbing with the animal oil, as after each rubbing for some time there was not nearly the amount of stiffness in the parts as there was before the rubbing. Was it the oil or the rubbing, or both?

A. F. WRIGHT.

Plainville, N. Y.

—:o:—

The treatment deserves the highest commendation, especially the prompt and energetic use of the antitoxic serum. Probably *both* the rubbing and the oil proved useful. Was the disease afebrile throughout?—Ed.

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EXPERIENCE — ALKALOIDAL AND OTHERWISE.

It is some time since the CLINIC has had any of my effusions—for the simple reason that when one absorbs alkaloidal teaching he becomes so busy caring for

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Never try too long to catheterize a distended bladder; better tap than make repeated efforts.

In strangulated hernia, if your efforts at reduction fail, do not prolong them too long; delay is dangerous.

patients that he cares less for writing. Nevertheless, heeding our good editor's general invitation to contribute something that may be of use to the brethren, I will relate a few facts.

CICUTINE IN A CASE OF -MANIA.

A telephone girl, with good history, stopped working, intending to take her vacation. She had been getting very nervous, and the sudden stopping from work produced a nervous crisis, the like of which I have never seen except in a lunatic. When I called she was in bed, held down by several women, and she had hallucinations of sight. The great cerebral and motor activity present was soon completely subdued by cicutine, five pellets at once and one every two hours during the day. After a few days I put her on tonic treatment and sent her into the country, on her vacation, with a girl friend, and in two weeks she was back at her post and has been working since, her work being now more clerical. The wear and tear of her occupation on the nervous system of the telephone girl is enormous; the knowledge of it should certainly make us city users of telephone service, merciful to the girls, when they are seemingly dilatory in their work.

A CASE OF "WINTER COUGH."

A fine old gentleman sent for me, he being down with an attack of his perennial bronchitis. He had had it for a week and was fearful that it would lay him up, like his previous attacks. He had been attended to in the good old fashioned cough syrup, *ad nauseam*, manner for three months or so. I put him on dosimetric trinity until the fever was quelled, and also on calcium iodized. In two weeks he was attending to his business and singing my praises.

Have you ever considered the value of leucocytosis in diagnosis? It's worth owning a microscope for.

A CASE OF SEXUAL NEURASTHENIA FOLLOWING TORSION OF TESTIS.

A most interesting case. A young man who had been preyed upon for months by the "lost manhood" quacks, came to me, giving a history of an acute swelling and soreness of the left testis, about a year previous. He was treated then by a regular physician, but no explanation of his trouble was given him. There was no history of gonorrhea. Upon examination I found his left testicle atrophied to the size of a small bean. From his history and examination I concluded he suffered from a complete torsion of the testicle, causing strangulation of it and eventual atrophy. I found, also, a general sensitiveness of the urethra, which yielded to euarol applications. The man's mental condition yielded to helpful suggestions and it is a pleasure to report his happy marriage—an increase in the family is already looked for.

CIRCUMCISION WITH COMFORT.

A boy of eight years upon whom I did a circumcision in my office yesterday, under cocaine anesthesia, walked home, and walked into my office today for inspection. The secret of his comfort is this: The penis is dressed with a bit of clean cotton soaked in creolin solution and supported singly and comfortably by means of my T bandage described in a former number of the CLINIC. It holds the penis in position and ambulation does not interfere with its hold, hence the comfort. Whenever the boy urinates the mother washes the organ in a solution of creolin (a teaspoonful to a pint of water) and reapplies the bandage. This case is one of intractable enuresis that has not yielded to medication. There was considerable redundancy of foreskin,

In pneumonia the number of leucocytes is largely increased, leucocytosis is absent in influenza.

and hence I circumcised. I hope to report later a cure of the enuresis.

These are but a few cases. I could relate many more that make recollections of practice pleasureable. By the way, the brethren have a treat before them in the new text-book on Alkaloidal Therapeutics, just out. My copy has just come to hand and I find before me a rich mine of medical lore in sight. I am indeed ignorant of a good many things about alkaloids, but with this book I am enriched, for as Sam Johnson remarked: "Next to knowing a thing, is knowing where to find it."

EDWARD A. TRACY.

Boston, Mass.

—:O:—

We are glad to hear from you again, Doctor. It is some time since we had the pleasure of reading anything from your pen. All these cases are "meaty." Why not relate some more of these "recollections." It is just as pleasant to us to hear of them, as the curing of the patients has been to you.—Ed.

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DOSAGE OF CHILDREN.

In the Cincinnati *Lancet-Clinic* appears a brief but suggestive paper by Dr. H. H. Jacobs, of Akron, Ohio, on the peculiarities of children as regards their reaction to drugs.

Such anomalies as the parent possesses may be transmitted to the child. Little, if any, information on this topic is to be obtained from the textbooks.

Clark suggested using the weight as a basis of dosage, taking the adult at 150 pounds as a standard. Young's method consisted in dividing the age plus twelve by the age, the resultant fraction repre-

senting the proportion of the adult dose suitable for the child whose age is taken.

Children are not merely little men and women. The digestive system, glands, vessels, blood, etc., differ notably. The therapeutics of childhood is too dissimilar to that of adults to make a simple variation in the size of the dose satisfactory.

Quinine, acetanilid, antipyrin and phenacetin are tolerated by the child in larger proportionate doses. Heart tonics are borne in relatively larger doses. He has found opiates safe in doses away beyond the table calculations, though this is traditionally unsafe in relative doses. This has not been the editor's experience, which has taught him to be exceedingly cautious in administering opiates to children.

Dr. Jacobs finds that children bear large doses of belladonna and hyoscyamus; arsenic may be given for months, and mercurials are better borne than by adults. He mentions an eight-year-old child who takes morphine, gr. $\frac{1}{4}$, or hyoscine, gr. 1-100, without appreciable effect, while her mother, weighing three times more, is completely relieved by $\frac{1}{8}$ grain of morphine, even when suffering with gallstone colic. But this same child suffered forty-eight hours from the intillation of atropine, gr. 1-100 in the eye. Another eight-year-old child took quinine, gr. 4, every two hours for a day and a half without showing any effect except relief of the malaria; yet when given two grains a year later a violent urticaria occurred. Its grandfather had quinine urticaria.

A child of four was thrown into convulsions by strychnine, gr. 1-40; but one six years old took gr. 1-15 every two hours for three days and nights.

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Leucocytosis is an important symptom in appendicitis; while it is absent in typhoid fever.

Wherever there is sepsis remember that you have leucocytosis. In intermittent fevers leucocytosis is absent.

Chloral is tabooed for children but he has found it safe. Some children are quickly nauseated by ipecac, gr. 1-10, or apomorphine, gr. 1-20, while others show no effect from three times these doses. A few whiffs of chloroform anesthetizes one child; several drams are required by others.

These things, and others like them, make us realize that there is something in comprehending the peculiarities of a family. But he does not advance a solitary fact showing any trace of heredity in his paper. All he does show, or try to, is that children often require larger than proportional doses, and sometimes react to smaller ones disproportionately.

His examples are nearly all on one side, that of bearing unusually large doses. Many more might be cited showing how powerfully the delicate and sensitive nervous tissues of the child are affected by the average doses of many remedies. The writer has seen narcotism induced by half the proportionate dose—regulated by age and by weight—in a child. The heart is easily depressed to an alarming degree by cardiac sedatives given to a child. Mercurials may easily be abused and frightful results ensue.

But the practitioner who has learned Burggraeve's admirable method of dosage views these difficulties with equanimity—they do not worry him now. It is so easy, since we have agents of speedy solubility and absorbability, to give the fractional dose every five to thirty minutes until we see just the degree of effect we wish, and then stop the medicine. Not even homeopathy more completely removes the unpleasant duty of forcing medicine on an unwilling child, and the possibility of danger, while the advan-

tages of prompt and decided intervention are retained.

Reading between the lines of Dr. Jacobs' paper we feel convinced that he could have said a great deal more, that he has cut out of the article as originally designed a lot of personal observations that would much better have been left in it. If we are right, we trust he will follow with another. And if our friends feel like contributing along this line the CLINIC has space at their disposal.



CALCIUM SULPHIDE. LABOR PAINS. MILK LEG.

On page 721, July CLINIC, Dr. E. D. Ault reports his cases of urticaria of the cervical region as a result of calcium sulphide saturation. You ask if any other readers of the CLINIC have noticed this effect of the remedy. I wish to state that I have observed a dark red erythema disappearing upon withdrawal of that drug. There were no wheals, no tenderness to the touch and no elevation of area involved, as in Dr. Ault's case. Of course this phenomenon may not have been due to the remedy mentioned, but taken in connection with those mentioned, the case may be of significance since the discontinuance of the calcium sulphide was followed by a disappearance of the erythema.

On page 731 of the same issue Dr. Lawrence advocates the routine practice of using hypodermic injections of morphine, gr. 1-6, and atropine, gr. 1-200, immediately upon being called to a labor case, and a repetition of the hypodermic sufficiently often to keep the patient under control of the drug to such an extent that she falls asleep between pains. He states that a case of ordinary labor will



In pneumonia the absence of leucocytosis, or a low leucocyte count, means a bad prognosis.

In measles leucocytosis is usually absent, though it may rise a little when pneumonic complications arise.

require several injections. Now while this method will undoubtedly relieve the patient of considerable suffering during labor, it will just as certainly produce ill after-effects in a great many patients by its tendency to lock secretions and bring elimination to a standstill.

The process of involution begins at once, following delivery, and this means that an enormous amount of waste material is being thrown into the general circulation to be eliminated by the various organs of elimination. Morphine causes retention of waste products and how can anything but harm follow its administration in these cases for this reason alone, to say nothing of its possible effect upon the nursing infant, its anti-lactagogue effect and the terrible conflict the doctor may some day bring down upon his head by its administration to a woman predisposed to or threatened with eclampsia? Then, after the awful battle has begun, he will wish most fervently that he could recall those injections of morphine.

One such case is enough to take several years from a doctor's lifetime and will give enough trouble to more than counterbalance the ease secured in a hundred previous cases where no eclamptic tendency happened to exist. True, relief from the excruciating pains of labor is sometimes imperative and in any case "'tis a consummation devoutly to be wished;" other things being equal, the accoucheur who can deliver his patient with the least amount of suffering, is the one who will hold the preference. To accomplish this object we have numerous other remedies and measures at our command and by keeping these in mind it is seldom indeed, that we would find it necessary to resort to the use of

morphine. With caulophyllin to relax a rigid os, chloroform or ethyl chloride inhalations when severe pains come on, and with hot wet applications to the perineum toward the close of the second stage, we can effectually alleviate extreme suffering in almost any case, but if these measures do not suffice we have recourse to hot sitz baths and to rectal injections of various remedies, such as chloral hydrate, potassium bromide, etc.

Dr. Stanton states, on page 749, that he finds coffee or tea the best liquid he has every found to mask the taste of drugs of all kinds, when it is necessary to prescribe them for children. How about the precipitation and antidotal effects of the tannic acid contained in the tea or coffee, Doctor?

In the August issue Dr. Z. T. Dodson reports some very interesting obstetrical cases. In concluding the report of case seven he modestly says: "Now I am only an ordinary country doctor and I don't know what ailed this lady. If anyone can enlighten us on this case from this description I shall be very thankful." I, too, am only an "ordinary country doctor." So perhaps Dr. Dodson doesn't care to hear from me, so I shall refrain from discussing the case, but I merely wish to ask the doctor if he considered a possible ectopic gestation with rupture and hemorrhage, which formed a hematocoele and caused bowel obstruction by mechanical pressure.

I have been considerably interested in recent reports of cases of phlegmasia alba dolens and in the great diversity of methods of treatment. I would like to know more as to its etiology. While the etiological factors of the disease are not definitely understood the consensus of evidence is in favor of a pure phlebitis,

While leucocytosis is absent in measles, it is marked in scarlet fever; a help in doubtful cases.

Plessi has found Kernig's sign in sciatica; others have found it in typhoid fever. At first found only in meningitis.

though it is sometimes as thrombophlebitis which is of graver import since portions of the thrombus may at any time become emboli and these becoming lodged in some remote organ, produce dangerous effects, either mechanically or by becoming infective infarcts or foci of infection. The possibility of a thrombus in connection with the existing phlebitis should always make us cautious about employing massage in any but a most superficial way.

Granting that the disease is essentially a phlebitis the question becomes, Why this phlebitis? What is the *causa causans*? Does it take its inception from some injury to the uterine veins during the contractions of the uterus and if so why is not the inflammatory process merely a local one? Or does this injury so lower the resisting powers of the vessel walls that infection arises from infective material in the venous circulation and that, thus gaining a foot-hold, the infection being fed by impure blood, travels throughout the course of the vein? In those cases unaccompanied by any symptoms of the puerperal fever, can we say that the phlebitis originated from infection of the venous sinuses at the placental site? Could the trouble arise from the entrance of infected air into the torn ends of the uterine veins? If, indeed, this is the anatomical arrangement, which is doubtful, I would like to have the CLINIC readers discuss these points, for the treatment of any disease becomes more exact and simplified the nearer we come to its true etiology and pathology.

On June 6, 1904, I attended Mrs. A., in a labor which was normal in all respects. Both mother and child progressed nicely for about ten days, when the former began to suffer pain in the

left leg and the lochia were suppressed. I was called, on June 21, at which time the temperature was 102°. F. The limb was slightly swollen, with considerable tenderness over the course of the venae comites of the posterior tibial artery, and over the popliteal vein, and this tenderness could be distinctly traced throughout the course of the femoral vein reaching well into the groin and along that portion of the external iliac vein which is on the horizontal ramus of the pubis.

I prescribed a cathartic and the following lotion was used externally over the course of the veins involved:

Tr. aconiti (Fleming's), chloroformi, aa oz. ½; linimenti calcis, oz. 1. Sig.—Shake and use externally as directed.

Internally the following was given: Morphinae sulph., gr. 1; hyoscyamine amorph., gr. 1-20; tr. belladonna, dr. 1; elix emmenagogue, elix aromatici, aa q. s. ad. oz. 2. Sig.—Teaspoonful every three or four hours.

Under this treatment the lochia were reëstablished, the pain subsided within a short time, and the swelling gradually lessened, the thigh reaching its normal size within five days; but even at this date (Aug. 26) there is still a slight, moderate amount of tenderness over the venae comites of the posterior tibial artery. The patient has perfect use of the limb, however, and experiences only slight distress after remaining on the feet for several hours. No vaginal douches were used during treatment for there was nothing to indicate a septic condition of the uterus aside from the fever, and this yielded promptly to a mild febrifuge after the cathartic had taken effect.

At the time the mother was at her worst the baby broke out with a diffuse erythema over the entire surface of the

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Kernig's sign consists in the forced flexion of the legs at the knee when the patient sits up.

In hemoptysis McLaughlin uses adhesive strips applied to the chest to limit the excursion of the lung.—*Med. Record.*

body and limbs, with desquamation of the cuticle, leaving exposed the raw, beefy-red cutis. Aside from the discomfort caused by the tenderness of this exposed area there were no symptoms indicating derangement of the system. The child was given small doses of pot. bitartrate and the body and limbs were smeared with petrolatum (slightly carbolated), freely dusted with bismuth-formic-iodide, wrapped in absorbent cotton and bandaged. Recovery was speedy. Was this condition induced through the mother's milk, and if so was the hyoscyamine and atropine responsible? Does one attack of phlegmasia alba dolens predispose to a subsequent attack? If so, what is the best prophylactic treatment?

L. M. LOWE.

Farley, Iowa.

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The doctor asks a lot of interesting questions which we are going to submit to the family for answer. The comments in the earlier part of this article are "right to the point."—Ed.

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DRUG FARMING.

Blessed is the man who makes two dollars grow where but one grew previously. And nowhere is there more room for the extra dollar than in the doctor's pocket. We hear a unanimous chorus of Amens.

Things never stand still in the world of man. Stagnation is an impossibility; evolution or devolution must be in operation constantly, everywhere, with every individual. The turning point with each man, the dividing line that separates youth from age, is the beginning of crystallization. As age advances we become "set" in our opinions and practice, until

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The purpose of adhesive is to assist the formation of clots, to limit their size and prevent their dislodgment.

at last we stand still and further progress is impossible. Then we are "old folks." As such we are looked upon with pity, derision, impatience or indifference, by the young. And this goes on for years before we suspect that we are "back numbers."

How about yourself, reader?

The medical profession is poor, and grows poorer daily. It thought it was poor fifty years ago, as it surveyed the modest joint on its table, but since then so many hungry jaws have bitten big chunks out of it that now little but the bone is left.

As the old channels of income become obstructed or diverted it is necessary to look about and open up new ones. We have repeatedly endeavored to direct the attention of our brethren to the importance of raising medicinal plants, but without tangible result. Now this matter has been taken up by an enterprising firm of manufacturing chemists, and already notable results have been achieved. In the current issue of *Red Cross Notes* an account is given of the experiments made by Johnson & Johnson to grow belladonna in New Jersey. Of this plant they use over fifty tons a year, mainly in the manufacture of plasters. This has been obtained from Germany, England and Austria. The supply grows yearly less in quantity and deteriorates in quality. The demand increases yearly as the uses of belladonna and its priceless alkaloids are comprehended.

Scientific agriculture has enabled the farmer to immensely improve the quality of his wheat and other food grains; he controls the production of leaf, root, seed and stalk; the quantity and nature of the starch, sugar and other valuable elements; he produces a wheat with ideal

In addition to strips, McLaughlin injects nitroglycerin, 1-100 grain, and morphine, 1-4 grain.

stalk for straw, an increased proportion of gluten, a beet rich in sugar, a leafless radish; he develops a cabbage into a cauliflower. He has cultivated the cinchona and increased its yield of alkaloids vastly above that supplied by the wild tree.

The Johnsons began by sending a competent agricultural chemist to Europe to study the conditions under which the best belladonna was produced, the seed, soil, cultivation, climate, the conditions as to heat, sunlight and moisture, etc. Then the cultivation was commenced in a selected tract, and analyses made of root, leaf, stems and herb, to determine the proportion and nature of the alkaloids present at each stage of the plant's life. While these investigations are not yet complete it has been found that the yield of alkaloid may be materially increased by varying cultivation. This season fifteen acres have been planted with belladonna, and the yield will contribute a notable share of the factory's supply.

Not the least interesting part of this account is a comparison of this scientific method of cultivation, with the collection of wild plants of all sorts of values, by illiterate peasants who work for two and a half cents a day, and bring in a supply of material which the dealer must go over and by the use of dyes, etc., bring to a "salable" color! As the demand increases and the supply diminishes there is more and more incentive to make up the required quantity in any manner possible, by sophistication, substitution, etc. Here is what Mr. Kilmer says:

An important feature to one, like myself, who is interested in the chemical and therapeutic properties of the plant, was that no attention, for the most part, was paid to the quality of the drug gathered, or to the changes which might take

place as a result of its gathering, drying, shipping, etc. In fact, to the producer the most important feature seemed to be that of color. If he could produce a color which would pass in the market, he was satisfied; all other properties were secondary. Consequently, I became convinced that many delicate drugs were injured, if not entirely destroyed, either in the hands of ignorant peasants, or by unscrupulous persons who prepared them for the market.

As an instance—many of the drugs are taken up by a large buyer in the growing district, and as received by him are unmarketable, having been carelessly dried, not well cleansed, nor preserved. He begins a series of manipulations which consist of a general dressing up, until the whole lot is brought to a uniform outward appearance, and in these operations many forms of dyes and other coloring matter are employed. To the plant chemist, as well as to the physician and patient, the handling of the drugs in the field, and the method of curing, is of great importance.

Well, Doctor, if you choose to employ belladonna, that is what you are getting. If you feel that it is good enough for your patients we have no comment. But in fact, if you use crude belladonna we venture the assertion that you really employ very little of the drug in your practice, except in the form of plasters.

Modern physicians employ atropine, for internal as well as ocular uses.

If there are physicians who have, at their disposal, time they would willingly transmute into currency and knowledge of agricultural chemistry, let them look over the price lists of crude drugs, and note the quotations; then consider which of these would possibly thrive in their localities. A garden would suffice to raise an experimental crop; and the results would show whether a profit could be secured from more extensive planting. As

Salom of Vienna treats many cases of genito-urinary diseases with hot air. It's a favorite method in this country!

Try camphor monobromide in insomnia; it is especially useful in cases due to excitement or to mental overwork.

yet, the Jersey experiment has not been pecuniarily profitable, as the work has been done in the most expensive manner, the plants raised in hot houses from seed and transplanted by hand. But when American machinery is arrayed against European peasant labor the result will be certain.



WHOOPIING - COUGH — WITH BRIEF REFERENCE TO TREATMENT.

If there is one disease more than all others that I have dreaded to tackle during a long period of my professional career I think I can safely say it has been whooping cough. In fact there has been such a strong conviction on the part of the laity that it was bound to run a certain course, in spite of any and all treatment, that the physician's services have seldom been called into requisition except in the event of complications, and I am frank to admit that until the advent of the modern alkaloidal treatment of this distressing malady these convictions were well founded.

I well remember the case of my own little girl (we have only one child), now ten years of age, suffering with the severest case of this disease I have ever seen, when only two years old. Ah, some of the readers of the CLINIC can no doubt realize my anxiety and anguish of mind after trying all the remedies then at my command without the slightest benefit. I read many of the latest and best authors and even looked over the works of Underwood and Meigs, which my father had when a disciple of Geo. B. Wood, Jos. Leidy and that host of luminaries then at the head of the medical profession.



Nickel bromide is another remedy useful in insomnia; indications much the same as those of camphor monobromide.

I adopted one of their suggestions and used oil of amber, rubbing over the back up the spine and the pit of the stomach, and oh, what a case of urticaria I had. I have never used it since. This was about two years before I began to study and employ the alkaloids in my practice, and what would I have given to have had such weapons then as these, and have known their sphere as I do now.

I have treated several cases of whooping-cough recently among infants, with the alkaloids, and upon the whole with such satisfactory results that instead of dread and apprehension I now approach these little patients with so much hope and certainty of bringing them sure and speedy relief that I really love to be called to treat them.

Now, to you, my professional brethren, who know nothing of this plan of treatment, it will be worth your while to listen. I will not consume space to describe each case in detail, but simply give the general plan of treatment followed. The first and most essential thing in the treatment is to saturate the patient with calcium sulphide. When I say saturate, I mean to fill them, as Dr. Abbott says, "full to the muzzle."

I hardly have any limit to the quantity I give until I get there. There are some toxins and their products that cannot swarm in the fluids and tissues of the body and hold high carnival when saturated with calcium sulphide, and I believe the germs of whooping-cough to be one of the class.

The next most important thing to do is to give enough atropine to flush the capillary system and sedate the mucous membranes. For a child two months old I give 1-250 of a grain in twenty-four teaspoonfuls of water; one teaspoonful

In some cases insomnia is relieved by setting the stomach at work; a glass of hot milk on retiring often "does the trick."

is given two or three times in the twenty-four hours, but as children tolerate atropine as a rule better than adults the only basis of dosage is the effect produced. Give enough to slightly flush the face and you have all the beneficial effects to be obtained. This is as near a specific treatment for whooping-cough as we have to-day.

As symptomatic and palatable adjuvants, sometimes highly useful for cough, especially where the case does not come under treatment early, we have valuable remedies among the alkaloids; cicutine and the modified Dover's powder, together act nicely, one of each in twenty-four teaspoonfuls of water. One teaspoonful is given every three hours to an infant two months old. Also the anodyne for infants, three or four of these with one of cicutine, prepared and given as above, is very fine.

Iodoform is another excellent remedy and as combined in the bronchial catarrh granule is very effective. The doses above are based on the age of two months. Of course they are to be proportionately increased for older children. In older children the granules for cough act better dissolved on the tongue, as we get the local effect which adds materially to the results. The above treatment, if instituted early and diligently followed, will prevent many cases from reaching the spasmodic stage.

L. B. YOUNG.

Rolesville, N. C.



OXALIC ACID CALCULI.

The patient in this case is a man, age nearly sixty-five years, by occupation a physician. He has always been and still



Atropine is hypnotic in prostration, low arterial tension, contracted pupils, frontal headache, overuse of eyes.

is a healthy man; never sick in bed three days in his life. All functions of his body are perfectly performed, so far as he knows. He served a term in the United States army from 1862-5. In the month of October, 1863, while in the service in Kentucky he was suddenly attacked with a very severe, dull, heavy pain or ache in the region of the right kidney, extending down into the bladder. This pain continued three days and nights, and stopped as suddenly as it began. Following this attack he noticed, occasionally, a slight irritation when passing urine.

In February, 1864, while urinating, he heard something strike the bottom of the vessel. No particular sensation in the urethra was noticed at the time. On examination he found a very smooth, egg-shaped pebble, of dark color, size of a small pea. Chemical analysis showed it to be a mulberry calculus, composed almost entirely of oxalate of lime. His physician advised nitro-muriatic acid, dil. in 5- 10- or 15-drop doses three times a day after meals. This advice was followed for a period of twenty years or more. Not a month of this twenty years that the acid was not taken, often as much as 30 or 40 drops well diluted three times a day. As he enjoyed perfect health, so far as he knew, he finally stopped taking the acid.

In September, 1897, thirty-four years later, while sitting in his office, he felt quite a dead, dull, heavy ache in exactly the same region as the pain of 1863; this lasted only four hours, stopping as suddenly as it came. About four weeks after this he felt a slight pain in the urethra when passing urine and on examination found a small, sharp, jagged crystal, size of a large pin-head; chem-

Insomnia is often only a vicious habit—a memory of a long-forgotten cause; cultivate will power; use suggestion.

ical analysis showed it to be oxalate of lime and phosphates. He took no medicines after this, but avoided all foods containing oxalate of lime, and all drinking water was boiled for an hour before use. About three months after this he began to notice a slight irritation, at times only, when passing urine, and the urine was found to contain phosphates in excess and a little mucus; no bile, no albumin, no sugar. Slowly this urinary irritation increased until about a month after he began taking ten grains of benzoic acid, c. p. with forty grains of sodium phosphate every night and morning. In twenty-four hours after commencing this treatment all irritation of the urinary passages disappeared and he feels perfectly well now. He is continuing the benzoic acid and sodium phosphate still, a few doses a week.

Now comes the queer part of this man's history. Every since he knew enough to dip a piece of litmus paper in his urine, and that was when he began to read medicine in 1858, his urine has always been alkaline or neutral; never acid, not even when he was taking a half a teaspoonful of nitro-muriatic acid, dil., three times a day; it generally was strongly alkaline and is so now. He cannot account for it, neither can I. My advice to him was "to let well enough alone," not try to acidulate the urine.

Will some one offer an explanation of this persistent alkalinity of the urine? I will say, further, that he is a user of tobacco; he chews moderately and smokes a cigar after each meal. Always a good sleeper, no dreams, says if he has a stomach he never heard from it. Twenty-five years ago he drank beer quite freely for eight years, but nothing containing alcohol, not even hard cider,

since then. He does not use coffee, lives very plainly, much as farmers do, with plenty of fruit.

No prostatic enlargement; never constipated, very active; weight 162.5 pounds; no lessening of his sexual strength; always ready for any duty that he may be called upon to perform. Always happy and a perfect picture of robust health.

Was my advice to him to "let well enough alone" right?

He says he wishes some doctor could tell him whether he is a physiological curiosity or a pathological monstrosity.

E. P.

—, New York.

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While urine containing calcium oxalate is most commonly acid, this is by no means always the case. It may at times be alkaline, and this is especially likely to be found if there are also phosphates, as reported in your case. Ogden's work upon the Clinical Examination of the Urine gives a good description of this condition. Oxalates in the urine are often of no very great clinical significance. They may be due to the use of food containing oxalic acid, or very likely at other times to some condition analogous to the uric acid diathesis. In some cases formation of oxalic acid stones causes more or less irritation of the urinary tract, as in your case, but it is by no means necessary that this should greatly disturb the health. We therefore conclude that your patient is neither "a physiological curiosity or a pathological monstrosity." The persistency of the acidity of the urine under all conditions and circumstances is of course somewhat unusual. Your advice to "let well enough alone" is certainly good, under



Remember that mental distraction is often all that is necessary to cause sleep; prescribe a course of reading—not too interesting.

Cannabin is a good hypnotic and may be given when no other remedy seems to be specifically indicated.

the circumstances. It might be wise, however, to exercise a little supervision regarding the diet, excluding substances prone to cause the formation of uric acid. We believe that calcium carbonate with lithium and colchicine are indicated in this case, and if there are more evidences of the trouble we should advise you to try this. Arbutin is also of value, where there is any irritation along the urinary tract.—Ed.



THE BITTER WITH THE SWEET.

I promised in my last not to bother you again, nevertheless I must write to endorse some of "B. A.'s" remarks (p. 956, September CLINIC). Not that I agree with him in regard to expense; if he would estimate the number of minimum doses in a pound of an assayed fluid extract and compare the price per pound with the cost of 1000 granules of the equivalent alkaloid it might look differently. There are so many other considerations which I need not enter into in favor of dosimetric medication that those of us who have gone into the matter will continue to use the granules more and more as we learn what they will do and how to handle them.

As to whether we can make the people take them and confide in them or not, that is a matter of the prescriber's personality; one must feel the subtle influences in the air; must be able to see around the devious corners of the patient's mind and must answer objections before they are expressed in words. Happy and successful is the physician endowed with this faculty, as you know, Doctor, for I think that you must be such an one.



Caffeine valerianate promotes sleep in chronic alcoholics and those suffering from nervous debility.

For this reason, too, and because we have not so comprehensive a grasp of the principles you expound so well, we cannot always get the results from the alkaloids that we are led to expect. Again, the galenicals are certainly not so black as you paint them. I formerly used them with fair success.

You make us prove your remedies for you, sometimes, as in the case of yohimbine, which was recommended in your query columns without qualification [Not so, brother! Look again. We gave you what was reported from supposed reliable sources, and have helped you to demonstrate the fallacy.—Ed.] until it was proven valueless. You write so forcibly and enthusiastically that a spirit of opposition is often aroused in the mind of the reader. We are so used to being asked, in glowing terms, to buy something which is probably good but which we don't need.

As to case reports, I dare not criticise much, having sent you so little myself, but a little less word-painting and more of diagnostic and even therapeutic detail would make them more useful.

Like another contributor I always learn something from each issue of the CLINIC. The best is none too good for me, that's why I use the alkaloids, and I want to be as proud of the journal I take as if I edited it myself; it reflects on my judgment, you see.

Regarding nomenclature, you have probably sized up the matter to your own satisfaction as good business, but I should think that calcium iodized would sell as well as calcidin, which one uses under protest on account of the coined name. If I could do as well without the CLINIC and the granules, etc., I wouldn't bother writing about it, but I'd

Caffeine valerianate used with benefit in the insomnia following great physical exertion or mental overwork.

like to see the journal go on improving as it has improved since I have been a subscriber.

T. E. MONTGOMERY.

Grand Mere, Quebec.

—:o:—

We do not expect everyone to agree with us, indeed this would be a humdrum world if they did. We enjoy friendly criticism; it stimulates us to better endeavor and is the best evidence that our readers really take an interest in our work. We know of no positive movement toward betterment in any line of work, religious, political or medical, which is not met with more or less lively opposition; indeed the amount of this opposition is something of a measure of the success of such a work.

We are glad to know that you agree with us on the main point, i. e., that dosimetric (active-principle) medication has come to stay. We are also glad to learn that you are using the granules more and more, because this shows that you are well satisfied with them, even though you do disagree with us upon some minor points.

We agree with you upon the value of personality. Whatever a man's method of practice, he cannot dispense with this. He must have confidence in himself and the measures which he takes to cure the sick. Without self-reliance and self-confidence, no matter how well he may be trained or, how amply he may be supplied with the material things necessary for the treatment of the sick, he will fail if he has not at least a modicum of faith in himself. He must be "the doctor."

No, the galenicals are not altogether bad; there are many of them which are excellent; in fact, we use some of them ourselves. We simply wish to emphasize

the fact that the greater accuracy of the active principles and their greater reliability, along with other considerations, should give them the preference wherever they are available. We believe that these points are of exceeding importance in many cases, and that this difference, small though it may seem, in some instances is sufficient to mean the saving of men's lives, lives which would be lost through the cruder methods, using the unreliable galenic preparations.

Regarding the case reports sent in by our subscribers, we shall have to disavow any responsibility for their "word painting." We take men as we find them; but as a matter of fact, we rather enjoy this "painting." The fact that they get enthusiastic after using the alkaloids shows us that they are in earnest, and that they appreciate methods which are out of the ordinary and are bringing results which they did not obtain with the galenics. We are always glad to get diagnostic and therapeutic details, and we shall be glad to get some from you.

Be sure that we are anxious to make the CLINIC just as good as possible, but nevertheless we want it to be the journal of our readers; to give them a part in it; and to let them feel that they have done their part in creating it; and to do this it is not always wise, so it seems to us, to cull and cut too close. We want the articles to be spontaneous, human, so that they shall represent the men themselves, not merely the expression of our ideas which have been trimmed out of the articles which come to us.

Regarding your criticism of the use of specialty names, this subject has already been discussed frequently in the CLINIC and elsewhere. The coined terms are, of course objectionable in some



Insomnia due to sexual excitement, with weakness and nervous erethism, often yields to brucine.

Hyoscyamine is a useful remedy in the insomnia, restlessness and disturbed sleep of children.

ways, but in others they are certainly defensible in that they safe-guard those who desire to be assured that they are getting just what they want—pure and reliable articles.

We hope that this will answer your questions, and also that we may be favored with more, not only of criticism, but of comment upon future numbers of the CLINIC.—ED.



MALARIA.

Here is a subject upon which I feel somewhat like an "authority," whatever that may be. Now the CLINIC is the best journal of them all, yet I suppose most of its readers would not treat malaria as I do. I am glad they differ slightly, for what fun would this old world furnish anyway if it were not for war?

A cowboy tumbles up-stairs and clanks his way into my office. His first remark is, "Doc, I'm sick."

Patient is aged 33, has drank considerable whisky; he's lived a hard life. At this first call he is pretty full of booze. Temperature 104° F., pulse 100 and strong. He was sick this way two days ago, but not so bad. He has some pain all over. Has not had a true chill. He looks yellow and concludes he must throw up. Quickly I assist him in this with a pint of sodium phosphate solution. I tell him to put up at the hotel across the street and I stake him with the following medicines: Quinine sulphate pills, 15 grains, to be taken once per day for three days and once in two days after the third dose.

If possible I am with him when he takes the first dose. If the condition of his stomach permits I request him to hold the pills in his mouth until they are "nice



Gelseminine is the remedy for the insomnia and excitement of acute fevers with headache; useful in mania.

and sweet." Then I am sure, the coats being off, they will not go through unabsorbed and ready to be taken again. Many an "authority" has seen his efforts "knocked galley west" by pills going through whole. When a doctor is shown such a collection of pills a few hours after he has given them he feels something like the pills himself.

I know very well that my patient wants a thorough cleaning out. It is just possible that typhoid is mixed with the case. We should not be too sure. We are on the safe side to give him ten grains of calomel at one dose; typhoid or not, it gets there. We fill a four-ounce bottle with a saline laxative. (We use salt-mouthed bottles.) Our cowboy must have his medicine in a strong container for he does not travel with a valet, and saddlebags get set on sometimes. For a day or two I advise the saline to be taken, a teaspoonful hourly.

If our cowboy is "busted" I give him a bottle of sodium phosphate in place of one of saline laxative.

If he is "healed" I give him a small bottle of sodium sulphocarbolate, to be taken, 5 grains every two hours. If it is uncertain that I shall be paid I just mix in a little of the sulphocarbolate with the sodium phosphate.

When calomel, saline and quinine have put in their work for a day or two the patient says he is "O. K." if malaria is all he has. The second "chill" does not come. When after two to five days our patient is ready to ride the range again, I direct him to take one to three teaspoonfuls of the saline before breakfast and to keep up the quinine for a week.

The reader must not think I ever say the word quinine to the patient; on the contrary I may warn him against it. Be-

The aged who have atheromatous arteries and suffer from insomnia are often relieved by gelseminine.

sides the pills are colored. Doctor, never tell your patient what you give. Probably I give also a bottle of dilute *aqua regia* colored with carmine.

C. E. BOYNTON.

Los Banos, California.



THE TREATMENT OF MALARIA.

We have been taught that malarial patients have a sluggish portal circulation; also that the mild chloride of mercury when taken into the stomach stimulates the portal circulation. These theories are probably correct, although they are frequently questioned. Whether they be correct or one or both of them be false, we have learned that a few small doses of calomel followed with a saline is a good way to begin the treatment of a case of malaria. Now come some of our friends who tell us that the saline without the calomel would do as well. I am not prepared to dispute this statement, but the calomel treatment has served me well and I am not willing to make a change until something else has been proven, not just as good, but better.

Having unloaded the alimentary canal and rendered it as nearly aseptic as we can we have the task of keeping it so. The argument that the alimentary canal can not be made aseptic and therefore it is useless to try to make it so, is untenable. We can reduce the amount of bacterial poisons to a minimum; in doing this we reduce the amount of absorption to a minimum. This is not all; in reducing the amount of the poison we also, to a certain extent, reduce the virulence of that poison. One of the best intestinal antiseptics is the bile. I therefore continue the treatment by giving small doses of dilute nitrohydrochloric acid. Nearly



all bacteria thrive only in an alkaline medium, so in giving the acid we not only stimulate the secretion of the bile, but we also decrease the alkalinity of the contents of the intestinal canal.

The correctness of this statement may be questioned on the ground that the bile, whose flow is increased, being of an alkaline reaction, will counteract the effect of the acid. This is not a question to be settled by theorizing. A little time spent experimenting with some of our domestic animals will give a definite answer. Although this decreased alkalinity may be transient, yet for the time it retards bacterial growth and by frequent repetitions we can approach unto a condition unsuited to bacterial development which will be more or less constant.

This is not claiming that the malarial organism enters the blood by way of the stomach or bowel; it is simply reiterating the truth accepted by all, that the presence of one variety of bacteria may increase the activity of others "whose virulence is increased by the symbiosis."

Our next step is to destroy the parasites already present. To do this give quinine in small doses, frequently repeated. The theory of those advocating large doses is that all of the malarial organisms undergo sporulation at the same time. This is incorrect. The most of them undergo sporulation at stated intervals, but there are some of the organisms which undergo sporulation in the intervals between the paroxysms. There may not be enough of these to cause systemic disturbances at the outset, but after a while we notice a typical quartan becoming a double or a triple quartan, or a tertian becoming a double tertian, but whether there are enough of the parasites to produce this effect or not there

Remember that there are several kinds of albumin, including serum-albumin, nucleo-albumin, albumose, peptone, fibrin, hemoglobin.

If the insomnia is due to pain, try acetanilid, phenacetin or possibly codeine; avoid the use of narcotics.

are enough to propagate the species and we cannot eradicate them by giving enormous doses of quinine spasmodically.

In all cases of malaria continued for any length of time there is a low state of vitality. I know of nothing that will counteract this better than strychnine. The red blood cells are destroyed by the malarial parasites and to the white blood cells is given the credit of antagonizing them. The indications for iron and nuclein seem to be plain.

Without there is some urgent demand for interference, I let the fever alone. It has been only in exceptional cases that antipyretics have given me the results anticipated. Methylene blue has not served me as well as my reading had led me to expect. In conclusion, it is based on the experience gained during a five years' residence in the swamps; and my chief reason for following this line of treatment, without which all others would be worthless, is that under it my patients get well.

J. A. REID.

Foristell, Mo.

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After all, the best evidence of the value of any method of treatment is the knowledge that "patients get well" under it. When theory and practice are in accord, then it is hard to pick flaws.—ED.

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MALARIA.

In your September issue you ask what we know about malaria. Well, we had it once and that's what we know about it. That was twenty-eight years ago, but the memory thereof is fresh. It was a chill, a fever, a sweat, a day off and a repeti-

tion of the phenomena and so on for six months. We asked our doctor what was the matter and he said he didn't know, and I reckon he didn't. After a while the matter ended. Why, we know not. We're glad enough to get rid of the pesky business without making inquiries, but in the light of these years this whole matter is plain. It is plain what the trouble was and it is plain why we got well.

In this section of the country we never see this malady in its worst form, yet we have seen it hold on for three or four weeks, yet we thought it should always be remedied in a good deal less time, say a week. We meet it frequently and in many cases in an atypical form.

A case in a little child four years of age has just recovered in which the chill was absent, yet there was fever, sweat and intermission, clearly marking it as of malarial origin and it yielded promptly to malarial treatment.

Treatment.—Thorough purgation with calomel and podophyllin to begin with. Quinine to cinchonization, given two hours before periodical attack.

This generally prevents the next exacerbation, but it cures no one, for the trouble will return in a multiple of seven days, say the seventh, fourteenth, twenty-first, etc. And I had my troubles thus until I got on to Brodnax's acid iron tonic. In my hands it has always been a dead shot. The quinine is worth much as a "stay of proceedings" until the tonic gets in its work. Just think about every case yielding permanently to this treatment in less than a week's medication.

I take it for granted that all my readers are familiar with this iron tonic, which, however, will be found on page 640, American Alkalometry, Volume I,

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Remember that a hot bath just before retiring will often conduce to healthy sleep; hot foot-bath often sufficient.

Do not permit your patient to believe that insomnia is incurable; convince him that you can give him relief.

under the head of Pruritus, with instructions for making and using. It is applicable to malaria.

M. G. PRICE.

Mosheim, Tenn.

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The formula for Dr. Brodnax's iron tonic will also be found in the last number of the CLINIC, along with other "good things."—ED.

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MALARIA.

As I am a new subscriber and have just entered upon the field of general practice, a little more than a year ago, I would like to give to the profession my experience in treating malaria.

When first I am called to a patient with temperature of 103° to 104° F., with the pulse bounding and full, skin dry, tongue coated brown, I give Lloyd's specific tr. aconite, 1/3 drop every hour until temperature reaches 101° F. I also begin giving: calomel, 20 to 30 grains; bicarbonate of soda, 10 to 20 grains; acetanilid, 10 grains. M et ft. chart. r.o. 4. Give one powder every two hours, following this with a saline laxative. After free evacuations of the bowels I give quinine, 5 grains, with acetanilid 2 grains at a dose, every four hours, until the patient is thoroughly cinchonized.

I rarely ever visit my patients the third time. My motto is: Give calomel and lots of it, for calomel is the sheet anchor in malaria. It requires large doses of calomel and quinine in the southern states. In fact I give medicine for the effect and not the dose. A great mistake that the southern practitioner makes is that he doesn't give large enough doses of

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Tartar emetic has been recommended for the insomnia of cerebral depression and of dyspepsia.

calomel and quinine. By this procedure I have never lost a case of malaria. "The proof of the pudding is the eating thereof."

J. M. BARNETTE, JR.

Stephens, Ark.

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Are these large doses of calomel and quinine needed? We know that this idea seems to prevail in the South—but, we doubt it. And there are some southern practitioners who seem to succeed as well—or better—without them. Come again, Doctor.—ED.

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MALARIA.

After twelve years of observation, in a strictly malarial district (Sac river, southwest Missouri) I will say, I have never met his majesty, the *Plasmodium malariae*, in person; I have only been introduced to him by proxy, and whether he causes malaria or malaria causes him, I don't know.

But here is what I think I know: That malaria is more prevalent in our district some years than others; that it has been far worse this year than for the three or four years preceding; that we have had about the same rainfall, and consequently about the same number of overflows for the last three years, but the nights have been cooler than the average the whole year through (evaporation certainly plays but little part in the cause of the nightly low temperature, or else the nights of other years would have been as cold as this one); that people who live east of a river, stagnant pools or marshes, are twice as liable to malaria as those in other directions. Whether the sun draws

When insomnia is due to cerebral exhaustion or innutrition, try phosphorus, in form of zinc phosphide.

the infecting material or the ever-present southwest wind blows it to them, I don't know; or whether the infection is "wet" or "dry" I can't say, but am inclined to think it is influenced by the fog, for I have noticed that people who get up late, and are not out till the fog settles, are not so frequently affected, and that people who live in valleys where fog settles, are more often affected.

The laity recognizes the fog as the medium of infection. There is one thing sure, we do not have malaria until dry weather sets in and the waters begin to dry up; neither do we have fogs till this time. I have also observed that fishermen who follow the trade daily seldom chill, and that amateur fishermen seldom fail to chill; also, that nine men out of ten who cut corn, chill, and that people who have screens have fewer cases than their neighbors, who have none. We as constantly expect malaria in this part of the country as our city brothers do syphilis.

I will say nothing about the symptoms of malaria, for they are as varied and as many as the directions for the wind to blow. There is an old saying handed down through the medical profession that when you find a case you can't make anything else out of, treat it as malaria, and the majority of cases will come out all right.

According to my experience it is utterly impossible to cure malaria, until you clean out and clean up the intestinal tract. Calomel and bicarbonate of soda, one-half grain to one grain of each, every hour for six to ten doses, followed with a saline cathartic, are the best things I have tried. Then I give quinine, one grain every hour until the ears ring, then every two to four hours, as required, to

keep them ringing for thirty-six hours; then iron, arsenic, and strychnine, for six days after last chill; then I repeat the quinine same as before, and so on, for five or six weeks. This routs malaria for me.

Quinine in large doses will sometimes produce exactly the condition you are trying to clear up. I have seen it administered for days, and fever stay as high as ever, and when the quinine was stopped the fever disappeared. Forty-eight hours is long enough to energetically administer quinine; stop it then and give intestinal antiseptics for as long a time and it is seldom one has to return to quinine. I can't always tell just where autoinfection quits and malaria sets in. Cod liver oil is of vast importance in chronic malaria.

L. T. DUNOWAY.

Coplinger Mills, Mo.

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SWAMP FEVERS.

I will say that I live down "in the stick," in old South Arkansas, surrounded by creeks and bottoms, where malaria is heavy; and have not had an opportunity to communicate with my brother doctors.

CASE I. I was called at 6 p. m., went in haste—what do you think—a man lying in bed, tossing from one side to the other, vomiting up everything; high temperature, urine like coffee poured in water, aching across the kidneys and over liver; bowels moved freely every half-hour and oftener, looked like pure blood; bowel distended, great pain and very yellow.

Diagnosis: Pernicious malaria.

Well, I went to work to save him, if possible, cleared the bowels with saline

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Hyoscine is good for the insomnia of fever with nocturnal delirium; hyoscine hydrobromate for mania.

Sulfonal is a reliable hypnotic; trional, veronal, etc., belong to the same class; give in hot liquids.

and hot and warm water. By that time he was almost exhausted. Shot him with morphine, atropine and strychnine. Vomiting ceased. Then thought best to reduce the temperature, which I did without any trouble, with antipyrin, after which the urine cleared up. Then I put 20 grains of quinine under the arm-pits and gave 10 grains of same by the mouth; then gave calomel gr. 10, soda gr. 10, in divided doses until the feces changed their color. I continued the quinine, gr. 5, strychnine gr. 1-60, every four hours, with diuretics and antiseptics, and stayed with him fifteen hours.

Oct. 14, 6 p. m., temp. 98.4° F.; resting good, urine normal, bowels tender, slight tympanites; gave saline, followed it up with carbolic acid and turpentine every four hours; quinine and strychnine every four hours.

Oct. 15, 6 p. m. Eyes bright, skin clear, temperature normal, and feeling all right except no appetite. I left off all except quinine and strychnine arsenates.

I have treated fifteen cases of swamp fever or "yellow disease," in the last three years; have never lost a single case and have never treated two alike.

CASE II. Boy, two years old; called at 8 a. m., Oct. 10, 1902. Found the little fellow lying in his father's lap, gaping and stretching, fever 100.8° F., bowels swelled considerably. As I was pushed with business I ordered castor oil given, and left aconitine granules according to Shaller's rule, and calomel to follow all, and turned to get my satchel, when on looking around I saw the child roll his eyes back and begin to jerk, his eyes set, lids jerking, head and muscles also; lips,

hands, feet and abdomen blue and cold, jaws locked.

My diagnosis was congestion of bowels complicated with malaria.

I succeeded in getting six or eight drops of belladonna down him. They thought the child was dying, and all left the house except myself. I loosened his clothes, and it being but 100 yards to my office, I ran and got my syringe, and at once began to inject warm water into his bowels. His bladder was full; lower bowels "chuck full" also; they at once emptied themselves completely. I covered the abdomen with capsicum, rubbed in good, followed with lard. He began to breathe and came to, singing a little song which he called "Poor old aunt Pheby." Temperature up to 106° F. At 10 a. m., I gave aconitine and hyoscyamine, three granules of each in twenty-four teaspoonfuls of water, one teaspoonful every ten minutes until effect, then every thirty minutes until fever fell to 101° F., then every two hours, leaving hyoscyamine until fever fell to 99° F. Left calomel, gr. 1-6 every half hour till effect. Gave elixir pepsin, listerine and strychnine arsenate every two hours.

Oct. 11, 10 a. m. Fever 104.5° F.; put the aconitine granules to him heavy until effect, continued rest of treatment.

Oct. 12, 3 p. m. Abdomen still swollen and temperature 103.5° F. Applied turpentine, brought fever down to two degrees above normal and ordered the aconitine given every three hours in the same dose as above; gave oil and turpentine three minims, followed with calomel to effect. I kept up the same treatment for eight days, the temperature falling lower every day. It sounds like ty-



Cypripedin is a remedy for insomnia which is used too little; excellent to quiet nervous system.

Scutellarin is another excellent nervous sedative which will often relieve troublesome insomnia.

phoid, doesn't it? I have treated several cases very much like this one.

W. M. FIELDS.

Moulton, Ark.

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Dr. Fields treats his cases of pernicious malaria with quinine and saves them. Dr. Brodnax and many others say that quinine is harmful in this form of malaria. What shall we think?—ED.

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MALARIA: HOW I TREAT IT.

I have treated all cases with electricity, and the alkaloids for the past four years without a death or a failure. The first step is to place the patient on the table or couch, take an electrode 4x6 inches, wet it in hot water, wring it dry, pour on it four drams of a solution of sulphate of quinine (quinine, 120 grains; acid sulphurous, 20 gts; water, oz. 4); place the electrode to the back of the neck.

Next take an electrode, 8x12 inches, wet it with hot water and apply to the feet; attach the positive pole to the neck electrode, the negative pole to the feet, and turn on the current, slowly, to 80 milliamperes, for fifteen to thirty minutes, and the seance is through for the day. Repeat every third day, if necessary. I hardly ever give more than three treatments.

Now should the patient complain of being sick at the stomach, or being dizzy, turn off the current for a few minutes, then resume the treatment, giving not more than 40 milliamperes; of course children and delicate women cannot stand more than 5 to 25 milliamperes.

The next step is the alkaloids. I give

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Scutellarin and cypripedin used together often give much needed sleep in nervous states; build up with triple arsenates.

the defervescent compound, full strength, according to Shaller's rule. I give them every half-hour up to two hours, and hold the fever down with this compound. It will do it. Then give from one to five grains of the intestinal antiseptic, according to the age of the patient, next the eclectic tablets, to keep the secretions free, following with from one to two teaspoonfuls of saline laxative in a half to a tumblerful of boiled water, every eight hours. Keep the bowels, kidneys and skin active.

For a tonic and reconstructive agent, give the triple arsenates and your case of malaria is well. Of course, you must feed right: Horlick's malted milk is the food for all patients. I give the triple arsenates according to Shaller's Guide.

O. HOUTS.

Hiawatha, Kansas.

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A TREATMENT FOR MALARIA.

How do you like this treatment for malaria? Commence with the following: Calomel and sodium bicarbonate, of each gr. 5. Make five powders and take one every hour, dry on the tongue; follow in two hours with a saline laxative, taking this in hot water every two hours "until effect." The next day take quinine sulphate, dr. 1; hydrobromic acid, dr. 1. Dispense in No. 0 capsules night and morning. Quinine arsenate gr. 1-6 three times a day, is excellent.

If fever should come on, I give acetanilid, gr. 5; caffeine citrate, gr. 1; sodium bicarbonate, gr. 1. One powder like this is to be taken every hour until the fever cools. Follow the above with iron and arsenic in some form, as Fowler's solution, the acid iron tonic, or

The bromides may be required in serious cases of nervous excitability, as the insomnia of acute alcoholism.

strychnine arsenate. Nuclein is fine to rebuild the blood. Nuclein, gtt. 2; iron albuminate, gr. 2, is the ideal iron combination.

This treatment will cure any case of malaria—it is the bedside treatment in a nutshell. Given in this form, one dram of quinine is enough for any case of malaria, if the bowels are first thoroughly cleaned out and kept antiseptic with the sulphocarbolates or with carbolic acid and iodine in 8-minim doses.

IRA A. MARSHALL.

Ironton, Mich.



MALARIA IN MISSISSIPPI.

I read Dr. Coleman's article on Malaria, published in the CLINIC for September, and was much interested and benefited. I am looking forward to your Malaria issue of the CLINIC with impatient curiosity as there is so much I want to learn in regard to it. My experience has been that medical authorities are not as familiar with the subject as they should be; in other words, there is a great scarcity of *reliable* literature on malaria. One who reads Osler on this subject can easily see he has never met the enemy on it's native soil.

Now in reply to your general inquiry, "How do you treat Malaria?" In all cases my first step is to "clean up, clean out," and *try* to keep clean; the last I often find rather difficult. If there is much fever I give (usually) sweet spirit of niter and fld. ext. gelsemium in moderate doses until the temperature is reduced to normal. If it is an ordinary case of chills I begin eight hours before chill time and give from two to four grains of quinine every two hours until four or

five doses are given. This will usually prevent a return of the chill and if followed by iron and quinine for a while will effect a cure.

Unlike Dr. Coleman, I am rarely ever called to a case in its early state. Most people in this section say they can cure a case of chills "just as good as a doctor" (very often they do), hence when the doctor sees the case, he has a chronic condition with (very often) serious complications. This malarial germ or microbe or whatever the scientist decides it to be, is not "stuck up" as regards its associates and will run along with syphilis, rheumatism or "any old thing," indifferent as to who or what they are; in these cases the treatment has to be such as will best overcome pathological conditions.

I often meet with cases of long standing when quinine has been used to excess, several times over. In these, after the preliminary "clean up" and "clean out," I put them on iron, arsenic and pepsin; after a reasonable time if no improvement is perceptible, I give acid carbolic, 1 drop; tinct. iodine, 2 drops, in water, four times a day for an indefinite length of time, always impressing on the patient the necessity of keeping the bowels open.

I often run up against cases that will not yield to any treatment. My advice to such is to "flee to the mountains"—get clear out of the malarial section and fill up on pure water and pure air.

I don't know what malaria is (and we have been rather intimate associates for forty years) but I *know* the water we drink has as much or more to do with its development than any other one thing that I know of.

My experience has forced me to the



Chloral hydrate is an old stand-by—but a remedy to be avoided as far as possible; danger of habit.

Gentle massage a short time before the hour for sleep will sometimes prove effective in insomnia.

conclusion that there is no specific. In my hands calomel has been indispensable. Quinine comes nearer being a specific than any remedy within my knowledge, but I have known it to fail very often. As regards the dose to be given I think this depends altogether on the condition of the patient and his habit as to the use of the remedy. Some are more susceptible to the effects of given remedies than others and some more accustomed to taking the remedy than others; in this country this is especially so with calomel and quinine. My rule is to give doses sufficient to produce the desired effect or until satisfied the effect can not be obtained.

I have never been able to accomplish much with small doses of quinine even when frequently repeated. After an experience covering thirty-five years, I am forced to the conclusion there can be no set rule governing the treatment of malarial troubles—each individual case must be treated as conditions indicate.

H. C. BUCK.

Lyman, Miss.

—:o:—

In reading the reports of southern physicians we have been struck by the fact that practically all of them consider the drinking water an important factor in the causation of the disease. While there seems to be a good deal of difference of opinion concerning the role of the mosquito in its transmission, nearly all agree that the water supply plays a very important part. But just how nobody seems to know. This is a question which someone should investigate. Possibly the malarial mosquito breeds in these places because "he" has found the surroundings peculiarly attractive; possibly the absence of insect enemies in these malarial

springs fosters their rapid reproduction; possibly the continuance of infected families close to the breeding place may keep up the contagion. On the other hand there is a strong probability that the water may serve as the means of conveying the parasites to the human host in some manner as yet not explained. Here is a field for investigation which is "wide open" for members of the family. Why not follow it up and report results?—Ed.

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ABOUT MALARIA.

The September number of the CLINIC asks the question, "What do you know about malaria?" The question puts me in mind of an answer once made by a Christian Science preacher, when asked if he saw a certain man seated in front of the pulpit, he said, "I think I see him."

In like manner doctors may think they know a good deal about malaria, but I imagine that what is not positively known would make a larger book than that which is known. When we try to delve into the mysteries of cause and effect, a superficial answer may be easy. We may say that malaria should not be called a disease, but a disease-producing ferment, or spore, or germ, or fungus is a causative element of disease, especially of fevers—but the former spore or ferment theory is not now in fashion. We have to take into consideration that this is, in a speculative sense, a microbial age; bacteria or microbes are everywhere. It is only a wonder that people dare eat, drink or breathe, or live at all.

The spore or ferment theory is not at present considered as a satisfactory explanation for the cause of malarial emanations or influence. No, it is the ras-

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Getting tired through moderate physical exercise—short of exhaustion—conduces to natural and restful sleep.

Time for the annual recurrence of influenza; remember that this disease shows a tendency to become epidemic and be prepared.

cally little microbe that is the cause of all the physical ills of life. What a pity that such a discovery was ever made to disturb man's peace of mind—and rack the brains of scientific minds to classify and give names to the multitudinous kinds of microorganisms.

When asked by the laity the cause of a disease it is so handy to answer, the bacterium or microbe is the cause, but the additional question may be asked, what produces the microbes? How came they into existence? And what about the different kinds? Did they or do they come by spontaneity, and are the different kinds produced by evolution, either from vegetable or animal origin, or from both?

The question is asked, what do I know about malaria? Rather than make a direct answer at this time, I will take the liberty to quote from print what some others say.

First, I will quote from Thomas, and maybe from others: "Malaria (from the Italian, from *mala*, 'bad,' and *aria*, 'air'—bad air). A term nearly equivalent to *miasm*, or *marsh-miasm*, denoting a poison generated in soils whose energies are not expended in the production of healthy vegetation. It has been estimated that this one cause has produced two-thirds of the mortality occurring in most warm countries—that is, in those countries where heat, moisture, and vegetable decomposition combine to promote its development. Experimenters have arrived at the conclusion that the morbid agent in malaria is a minute fungus, distinguished by various names.

"It is a well-established fact that districts infected with malaria are always rendered less unhealthy by cultivation, and in some cases a sickly atmosphere

has been converted by that process into one eminently salubrious.

"In the treatment of diseases of malarial origin, which mostly take the form of fevers, a change of location may be desirable or even a change to an upper story of the same house. The usual remedies are depurant purgatives, tonics and antiperiodics, to assist nature in throwing off the morbid influences.

"No question in medicine during the last fifteen years has occupied so much space and thought as the origin, development, propagation, and mode of communication of disease. The new questions on this subject have come in connection with the recent germ theory of disease.

"Many lower organisms, both animal and vegetable, have for many years, been recognized as the efficient causes of maladies, both external or local, and also for a few general or internal maladies. Some of the parasitic organisms of this class have a sufficient size in themselves, or their ravages are of such character that their effects on, and their relations to the invaded animal are visible to the unaided eye or to a low-power lens.

"In the middle of last century many authors pointed to 'animalcules' as the cause of contagion. Linnæus taught the doctrine of 'animate contagion,' as believed in during his epoch. We find a long list of diseases which those authors firmly believed were due to the effects of parasitic organisms, among which is itch, dysentery, the plague, leprosy, measles, syphilis, and smallpox, also pestilential carbuncle, or anthrax in animals, was attributed to a minute microscopic fly or gnat, forming a bluish mist in the atmosphere. Tubercles were thought to be due to acari, which invaded the lungs. Chol-

Influenza is caused by a specific bacillus, first described by Pfeiffer in 1892. It is constant in gripe.

The influenza bacillus is found in the sputum and is probably conveyed from person to person from the respiratory discharges.

era was also held to be caused by matters derived from lower organisms, which were more abundant in the atmosphere, soil, or water, or localities especially affected by this disease."

Now we have a new germ theory, in which the animalcules are endowed with new names, the germs being smaller and more numerous than ever before thought of, have become the great fear or dread of mankind.

What is malaria? Is it bad air? Not exactly. Bad air may be a producing cause. Is it infusoria? Not it, but infusoria probably act as a nidus, and important element in the production of malarial germs. Is malaria, then, an atmosphere loaded with malarial germs? Will this definition suffice in answering the question, What is malaria? Have I thrown any light on the subject of malaria? I fear not much. For the sake of argument I will venture an assertion.

Malaria, *per se*, is not a disease, any more than a microbe is a disease; both are causal agents, only the former is a more advanced product, of the same producing cause, it having arrived at the stage of a molecular substance, while the germ animalcule may be classed by way of comparison as an elemental substance, or nearly so. The decaying substances which cause the fermentative process cannot be called elementary in a chemical sense; we may call the action a primary process—in other words, there is a cause for the germal existence, or life, and that is fermentative action, hence it follows that certain conditions cause decaying fermentation and transformations, into germs, and these, in turn, when taken up and mingled with the air cause and become known as malaria.

There are three clinical types of influenza; the respiratory type, the nervous type and the gastrointestinal type.

Malaria is the tertiary stage of matter, causing disease, principally fevers.

F. DAMOUR.

Bolckow, Mo.

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The origin of the germ seems to trouble a great many people, who demand an explanation of the source of the first germ before giving in their accession to the germ theory of disease. Why not ask where the first cell came from? It is now a well-demonstrated fact, that malaria is caused by the presence in the blood of a protozoic organism—not a microbe—and that this is carried from one person to another by means of the mosquito. Read the article by Dr. Waugh and you will see how strong the evidence is. The proof does not rest upon merely academic ground.—Ed.

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BLINDNESS FOLLOWING MALARIA.

Regarding the case of "Blindness following Malaria" (August CLINIC, p. 849) I believe this a case of lowered vitality; a sudden dip toward death, I believe is a cause for paralysis of function. I have known total and permanent blindness to follow severe hemorrhage. I have recently had a case following quite severe diphtheria in a maiden of fifteen years; quite robust constitutionally. After recovery from diphtheria, blurring of vision came on; she could not read, there was a drawing sensation in the eyes. Examination revealed paralysis of the ciliary muscle in one eye. I treated her successfully by electricity, using four cells of a portable battery (combined and interrupted, mild negative current) applying a cup-shaped electrode protected

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In the respiratory type the lungs and upper air passages are principally affected; tendency to bronchopneumonia.

with wet cotton to the orbit, the positive being in the hand of the patient. The symptoms in Dr. Shippey's case point to faulty accommodation. Severe disease and not medicine is the cause.

T. SHAW.

Ypsilanti, Mich.



ABORTIVE TYPHOID.

Did it ever occur to you that you had made a mistake in your diagnosis, when after the exhibition of an effective laxative and a good intestinal antiseptic the fever disappeared and in a few days your patient, in whom you had diagnosed typhoid, got well? You who know the pathology of enteric fever, know that there is no such thing as "abortive typhoid." Typhoid which aborts is not typhoid. You know that when the bacillus of Eberth is taken into a more or less unhealthy alimentary canal, it takes from two to three weeks before symptoms appear, varying in time owing to the virulence of the infection, the amount of the infection and the susceptibility of the mucosa.

Typhoid germs affect the solitary glands, Peyer's patches, the mesenteric glands and later the liver and spleen. They play host in the glands, set up an inflammation there which differs in no essential from inflammation elsewhere, except that sloughing is the rule, while resolution is more common in most other forms of inflammation.

Once the germs get a chance to grow, they produce their specific poisons and the poisons their characteristic symptoms, fever, etc., just as the Klebs-Loeffler bacilli do in another patient; but who can diagnose the condition of growing



In the nervous type headache and back pains are prominent symptoms; condition may simulate serious spinal cord disease.

germs in the intestine, even though there may be malaise, loss of appetite and aching head? If it were known that the germ were in the intestine ready to attack the mucous membrane, then, no doubt, a good dose of calomel might remove the intending offenders, but once they are in the glands, setting up an inflammation there, and simultaneous with the beginning of the inflammation, there is the onset of symptoms, what medicine will remove them until the antitoxin in the blood, which is the essential feature in the Widal test, has formed to neutralize the typhoid toxins and the germs themselves have run their course?

Just as soon as there is a method by which we can tell when the bacillus of Eberth has gained an entrance into an unhealthy intestinal tract without waiting for the incubation period and the onset of fever, then, and not till then, can we abort typhoid fever by intestinal antiseptics.

F. R. FURSEY.

Asotin, Wash.

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I read your letter with interest. You make a very fair argument with the same unproven premise presented by all the objectors to intestinal antiseptics in typhoid fever—namely: you assume that all the phenomena of an attack are directly due to the typhoid bacillus. I will go further than you do in your letter and acknowledge that even in the stage of incubation this bacillus may be found in the blood and obviously beyond the reach of intestinal antiseptics, but this does not alter in the slightest degree the weight of the evidence derived from the clinical application of this principle.

If you will look over your files of the *Therapeutic Gazette* you will find a most



In the gastrointestinal type vomiting, diarrhea, tympanites and abdominal pain and tenderness; may simulate typhoid.

interesting paper there giving the results of the treatment of typhoid fever by acetone in the Chicago county hospital. This report shows numerous cases that recovered in much less than the classical twenty-one days. If this occurs with one antiseptic you must admit its possibility with others. These cases were diagnosed by the Widal method. It is simply begging the question to start with the principle that typhoid fever must run twenty-one days and then throw out all cases ending within this period. You can prove anything by such a method. The simple fact is that whenever a physician puts this method into practice he begins to have a whole lot of cases which he thought were typhoid, but which somehow become abortive. He did not have these cases previously and his colleagues do not encounter them until they begin to use antiseptics. You can suit yourself as to the explanation you give of these clinical facts. Either these cases are abortive typhoids or they would have become typhoid had they not been so treated.—Ed.



TYPHOID AND OTHER FEVERS.

The editor of the CLINIC has suggested to me, in a private communication regarding another question, that I should send in a paper upon the alkaloidal practice. Without being an authority on that special line I feel that I may be of more use if I give my experience of the treatment of fever in three continents for over thirty years.

Typhoid fever has always been a subject of dispute. When I was a Surgeon-Major in the British army, serving in India with the Twelfth Royal Lancers, we had an epidemic of fever and because

we did not return the disease as typhomalarial fever the Inspector-General of Hospitals was good enough to insinuate that some of us did not know our business. My immediate superior was content to accept the rebuff. I wasn't, so I proceeded to preserve the intestines in alcohol in several cases, after making my post mortems. These specimens are now in the museum of Netley Hospital, the army medical headquarters in England. On my return to England I forwarded my specimen to Professor (afterwards Sir William) Aiken, the celebrated pathologist, without making one single remark as to their nature or origin. He pronounced them to be excellent preparations and typical examples of ulcerative lesions in enteric fever.

I published a very short account of the matter in the *Lancet* and the existence of typhoid fever in India, which had been denied by the Inspector-General was universally acknowledged. Yet this does not prove that there is no such entity as a fever combining the symptoms of malarial poisoning with those of true typhoid. Rather the contrary, for otherwise he could not account for the severe mortality. I was even then an acknowledged expert in the treatment of Indian fevers and have handled hundreds of cases successfully.

What constitutes the entity of a fever? The only answer we can give in the present state of our knowledge would be, that modification of the protoplasm of the body that results in a definite train of physiological symptoms — any other answer is theory and guess-work. The experienced clinician must determine the nature of a fever for himself and act accordingly.

Two physical causes of motion sym-



In all cases of grippe the depression is great, often out of proportion to the severity of the disease; watch the heart.

It is necessary to employ proper supportive measures in cases of influenza; strychnine or brucine may be used.

bolized by the sides of a parallelogram have their resultant in the diagonal. Can the morbid elements of different diseases not modify one another so as to produce a resultant state different from that of either? This remains to be seen. I call attention to the latter part of the excellent article of Dr. Pennington, of Mohawk, in which he includes specific typhoid fever and malaria under the head of autotoxemia. Here also comes in the value of the editorial remark in answer to Dr. Bennett, of Loring, La., who asks, "Is there a hybrid of typhoid and malaria?" I have so often asked myself this question that I used to speak of the slow southern fever as *febris innominata*, since I was convinced that its true nature was not fully understood as yet. The fevers of Alabama are very familiar to me and I can endorse all the remarks of those observant Southern gentlemen writing in recent numbers of the CLINIC. The last time I spoke at the Birmingham meeting of the Medical Association of the state of Alabama, with the late learned Dr. Jerome Cochrane, I advocated the view that microbic poisons of whatever kind is but the living evidence of the retrograde metamorphosis of higher living tissue. To what practical end does this remark point?

If a disease can be aborted it is by keeping out the poison *en masse* through the emunctories, giving the still vigorous protoplasm a chance to exercise its normal function in the killing off of the disturbing residua, otherwise the disease must run its course and the conjoint elements of life vibrate at an altered rate until the power of autoinfection has exhausted itself through a complete modification of the physical factors of the life plasma. Recent views on post-typhoid

sepsis further illustrates this subject. A routine or fiddling class of treatment is as bad or perhaps worse than none at all, and therefore the eliminative treatment, combined with the antiseptic, is therefore scientific as well as practical.

I have been treating some of the severest cases of typhoid fever during the last ten years by the use of a fluid carbon disinfectant, and I have had the great advantage of the alkaloidal granules in managing the febrile symptoms in some of my recent cases. They are an immense assistance to the practitioner and strengthen his hand all along the line.

The article of Dr. Falcher, of Alton, Ill., in the October (1903) number is a strong and forcible claim to the reality of the jugulation of typhoid fever. Compare his statement and that of Dr. Smith, of Antlers, Ind. Ter., with the enteric fever returns of any of the general hospitals and something wanting will be very apparent. Either the diagnosis of the former or the practice of the latter is at fault. In the report of fifty-five cases of typhoid fever treated in the Presbyterian hospital of Philadelphia, the average detention in hospital was forty days, and that under what was claimed to be an ideal treatment. What do the alkaloidal men and their great leader say of this? Would answer that the hospital people never allow anything to be typhoid fever which does not run on for three or four weeks, which would be an indirect denial of the jugulation claim or that this practice is not as good as that of the sulphocarbolate men. Supposing that they do cut short the nascent typhoids in the way they claim. But have we latter the right to make such a sweeping claim as that contained in THE ALKALOIDAL CLINIC? Anyhow, it is bet-



Hydrastine or berberine may be used in connection with strychnine when there is a soft compressible pulse.

Acetanilid, phenacetin or other coal-tar products may be required; but beware of their depressing action and guard against it.

ter to prevent than to cure typhoid fever. Only a fool refuses to change his mind. I have seen my own doubts, questions and modifications of practice refuted in the writings of the CLINIC's correspondents, and I feel satisfied that they are under the guidance of men who know.

I have been very conservative in my views of the possibility of my having cut short typhoid fever in several instances, but now the weight of evidence is so immensely in its favor that I am pleased to think that it can be done, but let the younger members of the profession remember that any fever in any given constitution is a law unto itself. All the members of the "family," editors and correspondents, have my most profound respect.

JOHN E. PURDON.

Galt, Calif.

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This excellent paper should have appeared before this—it was received a number of months ago—but it is still timely. It voices the doubts, and hopes, of a large class of readers who are beginning to see the possibilities of the sulphocarbolate treatment.—Ed.

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MY FIRST CASE OF QUININE IDIOSYNCRASY.

Some years ago, while located in the Okaw Bottoms in Illinois, I was called to see a young lady, 22 years old. She had been having a chill every other day for a week or ten days. There was evidence of hepatic torpor and the usual symptoms accompanying a severe case of malaria.

I was met by the statement that she

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Atropine often gives relief to the headache of gripe; it is especially useful in cases associated with free sweating.

could not take quinine, and while I had never seen a case of true idiosyncrasy at that time, they were intelligent people, and I concluded that I had better go slow. I left some medicine for the fever, some calomel in small divided doses and some powders of salol, this at that time being my favorite intestinal antiseptic. I also left one two-grain tablet of quinine sulphate to be given in the evening, stating that I would call in the morning and I thought two grains of quinine could do but little harm in any case.

When I called the next morning I found the hands and wrists swelled, considerable rash, and the breathing was difficult. The patient informed me that quinine always served her in this way. I left some more salol and returned to town.

I had no methylene blue on hand and there was none at the local drug store and I did not know how I was going to cure her, when I saw my friend, Dr. R., from a neighboring town, on the street. He came into my office and I asked him what to do and he said, "Give her fl. ext. ergot. I have cured lots of malaria with it."

I began by giving fifteen drops every two hours, finally reducing to ten drops three times a day, together with eliminants and salol. Fever was continuous when this treatment was instituted; it began to gradually decline and was entirely absent on the evening of the third day, patient making a good recovery with an iron tonic. Ergot was continued for a day or two after fever subsided. What cured the patient?

JOHN A. WELSCH.

Farber, Mo.

For fever depend upon the aconitine; supported by digitalin and strychnine arsenate, in the "trinity," the action is ideal.

It certainly looks as though the ergot had something to do with it. But isn't it possible that the cleaning out and the use of the intestinal antiseptic were just as important factors?—ED.



PHYTOLACCA AND OBESITY.

In treating for obesity it should be remembered that phytolaccin is not of the slightest service save perhaps in these rare cases in which surplus adipose tissue is the result of glandular disturbances. The fresh juice of *Phytolacca decandra* berries, expressed immediately after the frost has touched the fruit, is, however, unquestionably of very general service. Just why is not understood, though many theories have been advanced. Some ferment is present which, by, changing the chemistry of digestion, prevents the formation of fat-forming products. Birds feeding upon the "frost-kissed berries" grow thin as rakes and many a fat man has experienced relief from the use of the remedy.

However, every case of obesity requires study and treatment according to the conditions present. Elimination, the withholding of starchy foods and exercise will do much; the alternate use of Vichy and Kissengen waters before breakfast and the obesity formula (alkaloidal) (colchicine, strychnine sulphate, berberine muriate, caffeine, phosphoric acid, phytolaccin, alnuin, oil of bitter orange peel) will be of frequent service—with or without the addition of the fresh phytolacca juice, as the case may be. Experience has proved that many patients who reduce slowly under the regular treatment lose pounds weekly if the two-drop tablet of phytolacca juice is added.



Do not forget the importance of equalizing the circulation; in few diseases is the internal congestion more marked.

After all, if we would treat obesity with success we must study our cases, classify them and treat accordingly. Often nothing but experiment will enable us to properly place a given case and when we do get brilliant results we are not quite positive why we succeed.

Still, with the possible addition of *Fucus vesiculosus*, we have in the above remedies the only really effective agents for the reduction of fat. Used boldly and with some judgment, we may expect from them results of a more or less satisfactory nature, usually quite satisfactory and always as good as any and better than most safe methods give. The use of phytolaccin alone will, however, invariably end in disappointment.—ED.



FATTY PANCREAS.

I wrote to you about August 16 of a case of chronic malaria, of twelve years' standing, and suffering from autotoxemia. Well, I could not get him to take the course of medicine that you prescribed, as he claimed that everything in the way of medicine hurt his stomach. I was giving him calomel, podophyllin and jalap. when I wrote you. I got him cleaned out, stools looking better, temperature normal and pulse normal, but could not get him to eat anything, to any extent—a little soup or malted milk, sometimes an egg in milk; but if he drank a cupful he would vomit it up—said it hurt his stomach.

Had a consultation with Dr. A. Anderson, of Estherville, Ia., who treated the patient two years ago with good results. I had great hopes all along of the patient's recovering, and so did the consulting physician give him great encouragement.

When there is headache or severe muscular pains do not forget the indication for the use of macrotin.

We both thought it was just a matter of getting enough nutrition into him. I had tried rectal feeding, but it irritated him. He was very irritable all through his sickness; was built a little that way when up and around.

His pulse and temperature remained normal to within two days of his death. Then he went into one of the most peculiar spells I ever saw. From that time on—one exception—he was never quiet, only when I gave him, per rectum, injection of potass. bromide and chloral hydrate.

He became quiet the first night after the nervous condition, and rational, and called all his family around him and told them he was going to die. Gave directions about his funeral and some business arrangements.

Then he tried to sleep, but would keep his legs and arms thrashing around and rolling in the bed, till the rectal injection would quiet him. Would give from two to three in twenty-four hours.

He gradually sank away. I did not see him the last twenty-four hours of his sickness. I spoke to the family about having a postmortem, to which they consented. Postmortem, eight hours after death, showed a rather small stomach, and pale; liver, spleen and kidneys in splendid condition. But the pancreas had undergone complete fatty degeneration. There was not a spot as big as a pea of the original gland. This is a rare case, as so few of our medical writers mention this in the medical works.

W. E. DODDS.

Richland, Ia.

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I read your report with profound interest. Generally, when we find cases men like you are in doubt about, or which

the alkaloidal methods will not cure, there is something unusual in the case. That you did not succeed in making a correct diagnosis is not very strange, since chronic pancreatitis is a very unusual disease and is rarely recognized until the autopsy. The symptoms are usually referred to the digestive tract and the course of the disease is usually afebrile. Arteriosclerosis, endarteritis, syphilis, alcoholism and cholelithiasis are the recognized causes. Inflammatory changes in the pancreas are prone to cause necrosis. Diabetes is not an infrequent accompaniment of disease of the pancreas.—Ed.

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EPILEPSY—SOME NEW IDEAS.

The etiology of epilepsy has been so thoroughly treated by abler men than I, that I shall limit my communication to what I know personally of the affection and my theories. About a year ago my attention was called to the work of a gentleman of this city who was treating this class of cases with marked success. Since that time, my office adjoining his, I have had daily opportunities for watching his work and verifying his results. My observation convinces me that the methods used by him are the most successful I have seen and have behind them a basis of good sense and logic. The principles involved I believed to be dual, viz., sedation or stimulation of the sympathetic and spinal nerve centers and suggestion. Which predominates in bringing about a cure, I am at a loss to determine, but am convinced that both are necessary. This gentleman is of a very positive temperament, thoroughly imbued with confidence in his method,

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Emetine is the indicated remedy for the dry, irritative coughs so characteristic of early stages of grippé.

Cases characterized by severe nervous disturbances are benefited by camphor monobromide and nickel bromide.

and impresses his patients strongly with his own personality.

In all the epileptics which I have examined with him I have found a very marked and characteristic lesion in the spinal region. This usually consists of an elevation of two or three dorsal vertebræ, with a tumefaction to the side of the same.

There is usually no tenderness, but the patients say they feel a throbbing in the stomach when the vertebræ are strongly pressed upon. Frequently there is a crackling sensation conveyed to the hand upon palpation, as if there were air in the connective tissue over the tumefaction. The treatment consists in making strong pressure over the protuberant vertebræ, the patient lying on his belly upon a low couch, and a thorough massage over the entire length of the spine and sympathetic ganglia. The treatment usually lasts about fifteen minutes and is accompanied with a talk by the operator, emphasizing the fact that the trouble is due to a nerve pressure, the cause of which he has discovered and which his treatment will positively remove, and when once removed a recurrence of the fits will be impossible. No drugs at all are used.

The spinal lesion I believe to be the result and not the cause of the disease, but that its existence, due perhaps in the first place to irritation of the nerve centers from repeated explosions of nerve force in these centers, by pressure, maintains the instability of nerve equilibrium and perpetuates the condition from which it originated, after the exciting cause has passed away. I am convinced that epilepsy in the majority of cases is a "habit." We know that the first effort of nature after an injury is to establish

compensation in some shape and it does not sound like good logic to me to attribute continued convulsions to traumatism, even in cases of known injuries.

We all know that the causation of epilepsy in the majority of cases is very obscure. All we can say is that the convulsions are due to exaggerated reflexes but as to how they become exaggerated we cannot say. During the past ten years I have treated several hundred cases of alcoholic and drug addiction and to me there is a very marked analogy between the drug habit and the "epileptic habit." In the former class of cases all cures which have ever been made, regardless of means used, have been made by suggestion and suggestion alone. It is true drugs are useful adjuvants, but the cure is accomplished when the patient realizes that drink or drugs are not necessary to his comfort or existence. Just so long as this conviction is maintained, is the cure maintained. Shake this conviction and the patient "lapses." Just so in epilepsy. Convince your patient that the cause of his trouble has been removed, so that the conviction is rooted in his subconscious self, and a convulsion is an impossibility.

Just what the immediate exciting cause of a fit may be, we may not know, but it undoubtedly emanates from some cause exciting to the subconsciousness, outside the cognizance of the objective mind. All epileptics are exceptionally sensitive to suggestion, if properly given. I do not believe suggestion given in the hypnotic state to be as effective as in the waking state. In the hypnotic state objective consciousness is in abeyance and the suggestion conveyed directly to the subjective consciousness without the knowledge of the objective mind. In the



Quinine is undoubtedly useful in many cases of grippé; use the arsenate or the hydroferrocyanate.

Lockwood thinks severity can be modified by early administration of quinine, with sodium bromide to prevent cinchonization.

waking state the suggestion is conveyed with the full concurrence of the objective mind by virtue of its appeal to reason.

The reason having been convinced, the patient continues to give his own sub-consciousness the necessary suggestions after the treatment has been discontinued by the physician. In the hypnotic state the attributes of reason and logic which belong exclusively to the objective consciousness are suspended and the permanency of the suggestion depends solely upon the capacity of the subconsciousness to retain the impression without the constant reinforcement of autosuggestion by the reason.

As I said before, I cannot determine, to my own satisfaction, which element of success predominates in this method. But the results are unquestionable and I send this communication in the hope that it will bring out ideas from others better than my own and promote investigation along these lines by abler men than I. I especially request that my readers who have never examined the spines of their epileptic patients, do so in the cases under their observation, and I am convinced that they will invariably find a deviation from the normal.

As to the permanency of the cure: My personal observation of cases under treatment is limited to about eight months, but I have conversed with quite a number treated from one to three years ago, in which there has been no recurrence of the fits. The gentleman referred to has under treatment at present a man aged thirty-nine. This patient was admitted to the St. Louis Insane Asylum in February, 1904, with dementia, following epilepsy. There was a history of syphilis and a large bed sore over the sacrum of unquestionable syphilitic char-

acter. This patient was removed from the Institution to his home, on August 14, and the spinal treatment begun. The projection of the vertebra was very pronounced in the dorsal region as well as the tumefaction. Treatment was given every other day. At the end of the first week the patient's mind began to clear and he realized his surroundings. In two weeks he began coming to the office for his treatments, and so far as anyone can determine is perfectly rational. At the end of the third week, on account of the unhealthy condition of the bed sore, he was put upon the mixed treatment. From the time of his committal to the asylum he had fits; some days a large number. A few days preceding his removal he had thirteen in twenty-four hours.

The antisiphilitic treatment was commenced after his mind had become clear, so that the result cannot be attributed to the influence of medicine. In a little over three weeks he has gained in weight a little over twenty pounds, most of which was gained before taking any medicine. So far (August 19) there has been no recurrence of the seizures.

Within the past eight months there have come under my observation ten cases in none of which was there more than one attack after commencing treatment.

While this treatment has not been subjected to the test of long time in the hands of different operators, it seems to me that the results obtained so far warrant further investigation and I trust that some of my readers may deem it worthy of consideration and trial and will report results.

A. CONWAY.

St. Louis, Mo.



Salol combined with phenacetin has been much used for the relief of pain; beware of depressing drugs.

Remember that a hot bath does much to relieve pain and serves to equalize the circulation; try heat locally.

This is a thoughtful article and one which, we are sure, will stimulate thought. How many of the readers of the *CLINIC* have observed the tumefaction in the spinal region to which Dr. Conway calls attention? We suggest that you examine your cases of epilepsy carefully on this point and report your findings in the *CLINIC*. Of the influence of suggestion in the treatment of epilepsy and all other neuroses there can be no doubt; but of the limits to this usefulness there certainly is a good deal of question. The "subconscious mind," in spite of Hudson, with whose works we see our correspondent is familiar, has its limitations. But every physician should certainly understand the necessity of using this strange and perhaps inexplicable power of "suggestion" to the utmost. The article opens up a new and interesting field which we hope the family will cultivate.—ED.



SODIUM SUCCINATE.

You advise the use of succinate of sodium in cases of gallstones, to be taken for a year. Farther on you say, that other remedies recommended are boldine, chelidonin and dioscorein. Is it absolutely necessary to combine one of the latter three drugs with the sodium succinate?

In a letter you told me to give one sodium succinate four times a day, with boldine. As I like to know the effect of the sodium succinate on gallstones, alone, do you believe, that the use of that preparation, alone, will give me good results?

At what times of the day would you give them? One right after each meal and one at bedtime—is that all right? Must they be dissolved?



If there is troublesome cough, small doses of codeine are more satisfactory than morphine; give with emetine.

Of course if you deem it necessary to combine sodium succinate with another preparation, I will do it.

I have one patient with gallstones, who is using sodium succinate regularly. There is a prominent lady in this town who suffers a great deal with gallstones and who inquired yesterday, by my patient, how he was getting along under my treatment?

The reason that I bother you with my questions is because I want to give the sodium succinate a fair trial. And as there are a number of people around here, who suffer with gallstones, I hope to make a success with this line of treatment.

A. P.

—, South Dakota.

—:o:—

No, it is not absolutely necessary. I have given sodium succinate in gallstones for more than twenty years. I have never found a case which resisted it. I give five grains before each meal and at bedtime, preferably dissolved, as I never trust a tablet entirely; in every case the paroxysms have grown less frequent and severe, so that within a year they ceased entirely. I have never had a chance for an autopsy.

The other drugs have been added mainly on account of the encomiums made by other good authorities. Boldine is largely used in France and the reports are very encouraging. Chelidonin and dioscorein have been largely used in America. With all three the reports are so encouraging that I have felt it wise to advise their use with sodium succinate. I think the latter has a solvent action, possibly a germicidal one; in fact any one of the four may combat the catarrhal condition of the duodenum

Do not forget the value of calcium iodized in all affections of the respiratory tract; it often seems specific in grippe.

and gall passages or destroy the bacteria that cause it.

I trust, Doctor, that you will let us know the results of your trial. The succinate did not originate with us, nor is it alkaloidal!—Ed.



UMBILICAL HERNIA.

In the last few issues of your good journal there are given instructions how to treat umbilical hernia, especially in children. They all direct that a convex pad of some kind or another be applied. According to the teachings as given in von Bergmann's Surgery, this is all wrong. Turn to volume four, page 600, and you will find: "Special bandages and trusses are not to be recommended, because they constrict and excoriate and allow the intestine to appear again at short intervals when apparatus is being changed. This, of course, destroys any advantage that may have been gained while they are worn. Those with small, round pads are especially to be condemned because they tend to dilate the hernial ring; and if a pad is to be used, it should always be flat and extend beyond the margins of the umbilical opening."

I call your attention to this matter because Dr. Abbott has a favorite method of treatment by a convex wax mold which he directs to be applied; and in your last issue, page 991, Dr. Hendrickson states: "Take a small teaspoon made of bright, smooth, soft metal; cut the handle off close to the body of the spoon, file all rough surfaces smooth and drill a hole in each end large enough to receive a broad tape. Now replace the hernia and place the convex portion of the spoon over the hernial opening," etc.



Lobelin is another remedy which is very useful in affections of the respiratory tract; keep it in mind.

This would appear all wrong after reading von Bergmann's Surgery.

Prof. E. Graser writes the section on hernia appearing in this surgery. He says, "Prophylactic measures are of the greatest importance. The cord should never be pulled upon, etc. Any disturbance of the bowels, or of micturition, or coughing and crying should receive prompt attention. If a small swelling develops in the umbilical region, this should be attended to promptly. The umbilical ring tends to close on its own accord, and the intestine does not find room in the small sac. The simplest and safest way of aiding nature is to apply adhesive plaster bandage after reducing the hernia. This should be done with the child on its back, and a small piece of wet cardboard should be strapped down directly over the opening."

ROBERT PETER.

Chicago, Ill.

—:O:—

In this, as in many other things, "doctors disagree." Our experience, and that of many other practitioners, favors the pad—made in various forms and shapes, to suit the case. The convexity of the pad should, of course, not be great enough "to dilate the hernial ring." That goes without saying.—Ed.



BEE STINGS.

To Brother W. W. Shafer. I am satisfied that ecthol, a combination of echinacea and thuja, will prevent the sting of bees from hurting him. Let him take dram doses every hour for three hours before he commences to work with them. The reason for the faith that is in me is this: They used to hurt me. Last summer I was taking it for a skin disease

Inhalations of steam, creosote and menthol are often comforting, especially if headache depends upon congestion of frontal sinuses.

and while under its influence I was stung by a wasp on the face and neck. When stung I started to the house to get something to stop the pain and swelling that I expected to suffer with, but instead of pain and swelling as heretofore when stung, there was no more of either than a mosquito or a gnat would have caused.

I would write up some cases of erysipelas, pneumonia and slow fevers treated with the alkaloids if I was not such a sorry writer.

W. H. BARNETT.

Huffins, Texas.

—:o:—

Report those cases by all means. Doctor; no excuses will be accepted! When Dr. Shafer has tried the remedies suggested for bee-sting we shall expect a report from him.—Ed.

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BEE STINGS. DISLOCATION.

If you or Dr. Shafer will look in any homeopathic text book on materia medica you will find that salt, sweet oil and onions are given as antidotes to *Apis mellifica* or bee stings. Now understand from the above that any one is an antidote not all three together.

I recently had a case of a man who was violently knocked from a 16-ft. hay-stack by a stacking machine. He struck the ground so hard that he says he bounded several feet into air after striking. At any rate, he dislocated his left hip, and although it was perfectly reduced, and he can now use the limb real well, still he has atrocious pains in the foot. Originally the leg and foot hurt, now only the foot, and especially at night. I have given everything I could think of to relieve the pain, but without any appreci-

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Thymol, myrrh and oil of cajeput are all remedies which have a place when the upper respiratory tract is affected.

able effect. I feel certain that there was no neuritis, but it was very difficult to reduce the dislocation and I feel certain that there was injury enough to have caused at least severe irritation of the nerve, perhaps the formation of adventitious tissue which infringes on the nerve even now. What can you recommend to give him relief?

E. W. FEIGE.

Woonsocket, S. D.

—:o:—

We hope the suggestions concerning bee stings may prove of benefit, not only to Dr. Shafer, but to many other readers of the *CLINIC* who have found difficulty in the successful treatment of this painful accident.

Regarding that case of dislocation of the hip, we suggest that you try thorough massage of the limb, and if you have it, the static current; at the same time eliminate thoroughly with calomel and podophyllin, 1-6 grain of each every hour until a grain of each is taken, every second or third night, following with a saline laxative next morning. Iodine in some form should be used; try calcium iodized. Rubbing the limb with a liniment composed of oil of wintergreen, one ounce, and compound soap liniment to make four ounces, will help to relieve the pain. It might be worth while to try small flying blisters over the sciatic notch.—Ed.

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BEE STINGS.

Apropos of page 959, September issue of the *CLINIC*, tell your readers to try *Apis mellifica*, say 3x or even 6x, when they are stung by bees, and see if the symptoms described by Dr. Shafer do not promptly yield. "Schools" do matter;

For convalescence remember the importance of conserving the strength; don't let patient go to work too soon.

what the world is suffering for is the short cut to the result.

R. K. CARTER.

Blue Ridge Summit, Pa.



BEE STINGS.

I want to tell Dr. W. W. Shafer how he can handle his bees without getting stung. For a small sum he can get a good bee veil and gloves which will protect his face and hands; then with a string tied around both ankles to prevent the bees from getting under his pants he will be prepared to go among a hive of maddened bees without fear of getting stung.

As to his condition after being stung, I do not quite understand. The noon-day meal may have had something to do with his condition, but more likely it was some peculiar systemic condition, as the poison on a bee-stinger is said to be formic acid. The dose was very small, even by hypodermic injection, to cause the results it did. Bee stings are said to be a specific for rheumatism, and I do not remember a single person who has kept bees that has been bothered with this troublesome disease.

Perhaps some reader will want to know how this virus or its tincture is obtained. This is the way it is done. The bees are collected into large bottles and then the bottle is well shaken, to cause the bees to extend their stingers; on the end of each sting is a tiny drop of the poison. Alcohol is immediately poured over the bees, which kills them instantly. The bottle is then shipped to the apothecary, who does the rest.

I would like to hear from others on



Iron in some form along with strychnine and quinine are peculiarly desirable during convalescence.

the effect of bee sting in the treatment of rheumatism and Bright's disease of kidney.

B. M. DAVIS.

New Tazewell, Tenn.

—:0:—

We think Dr. Davis is mistaken in thinking formic acid the poison of the bee. Ants secrete formic acid; bee poison is essentially different.—ED.



TREATMENT OF ERYSIPELAS.

First clear the alimentary tract of toxic material, with small doses of calomel, gr. $\frac{1}{2}$, every two hours until four to six doses are taken, followed with epsom salt in four hours after the last dose of calomel, sufficient in quantity to move the bowels freely. Continue the epsom salt in solution, giving enough to move the bowels once every twenty-four hours. Also give four to six drops, every two or three hours, of tincture of iron chloride in a half glass of water.

On the first visit apply the following: Tannic acid, dr. $1\frac{1}{2}$; carbolic acid, gr. 40; water, oz. 12. Apply this on a thin white cloth, which should extend several inches beyond the inflamed area and kept constantly moist with the solution during the continuance of the trouble. This treatment is for the sthenic form of erysipelas. Try it and see how promptly your patient will feel relief. I claim nothing new in the above treatment, only the manner of its use.

A. A. HENDRIX.

Crofton, Ky.

—:0:—

Doctor, if you have never used pilocarpine in the sthenic form of erysipelas I would not ask a better opportunity to demonstrate the value of alkaloids.—ED.

Remember that leucocytosis is reduced in influenza; the indication for nuclein is very plain.

AMONG THE BOOKS

Pathological Technique, a Practical Manual for Workers in Pathological Histology and Bacteriology, including directions for the Performance of Autopsies, and Clinical Diagnosis by Laboratory Methods, authors, Drs. Mallory and Wright. Publishers: W. B. Saunders & Co., \$3.00. Third edition, 1904. The best book extant on this subject and standard in our own scientific laboratory. If you do laboratory work of any kind (and every physician should) you will find this book indispensable.

Dr. Charles B. Penrose's *Text Book of Diseases of Women* is before us in its fifth revised edition, published by Saunders & Co., 1904, at \$3.75.

This edition keeps up its well-earned good repute which has demanded three revisions and five reprints. While the work is not exhaustive for the specialist, it is preeminently adapted for the student and general practitioner.

The second thoroughly revised edition of *The Principles of Hygiene*, by Dr. D. H. Bergey, records a further progress made within two years in hygiene, which is really the science of prophylaxis. No physician deserves that honored name who is not familiar with Hygiene, so that he can give just and intelligent advice about food, raiment and shelter, and he, and not the grocer and draper and carpenter, and plumber, should be authority in these matters. Old is the proverb: "An ounce of prevention is worth more than a pound of cure," and older still is the neglect of it. Why? Because physicians

were (and are?) taught much of sectarian materia medica, much of which was (and is?) palliative, and little, or nothing at all, of the materia alimentaria and prophylaxis. In a hundred volumes on medicine in a physician's library you may find one volume, or none, on preventive medicine. This is not as it should be, and the time of hygienic ignorance should begin to be passed. How I could write and scold on this topic! But space is dear and I will only do my duty when I heartily commend (I wish I could command) this excellent book by Dr. D. H. Bergey, published by the above firm at \$3.00.

A Text-Book of Pathology, by Prof. Joseph McFarland, is a work that was expected with great interest by those who became familiar with his eminently clear labors in Bacteriology. It is from this all absorbing point of view that the work becomes most valuable. The chapters on Cell Life, Immunity, and Infection are clear exponents of present day pathology, and it is with this that the student and practitioner have to deal. The publishers are W. B. Saunders & Co. Price \$5.00.

The Practical Application of Roentgen Rays in Therapy and Diagnosis, by Pusey and Caldwell, has in one year attained to a second, thoroughly-revised and enlarged edition. Such is the excellence of the work, the profession's acceptance of this new branch in medicine and the progress of medical science. The publishers have done their full duty by

the authors and stinted in nothing to make their work the leading one in this branch. Publishers, the same as above. Price, \$5.00.

Radiotherapy and Phototherapy, Radium and High-Frequency Currents, Their Applications to Diagnosis as well as Treatment, is given us by Drs. C. W. Allen, M. Franklin, and S. Stern, and published in fine style by Lea Bros. & Co., \$4.50.

The subject is of absorbing and wonderful interest and this work gives us nearly all that is known of it today.

For some months past we have kept by our desk *Appleton's Medical Dictionary*, an Illustrated Dictionary of Medicine and Allied Subjects in which are given the derivations, accentuations, and definitions of terms used throughout the entire field of medical science. Edited by Frank P. Foster, M. D. New York and London, D. Appleton & Co. \$10.00.

For years we have referred daily to the same author's grand work, the *Illustrated Encyclopaedic Medical Dictionary*, in twelve volumes, which though copyrighted in 1888 has not become antiquated to this day. The advantage of this Dictionary above all others is that the names of the articles are given in Greek, Latin, French, and German, and the names in the last two languages are given in the alphabetical order. This grand work, we know, has been an important guide to the great dictionaries that appeared in this country during the present generation. Literary workers in medicine have desired no doubt to have a new edition of this grand work, incorporating what has accumulated in the arts and sciences of medicine since 1888. And it seems to us

that this *Appleton's Medical Dictionary*, by the same versatile and profound author, is a considerable fulfillment of that desire. The names in the foreign languages are given in this last fine work along with English, but not separately, alphabetically. The work contains 1,991 pages 10x7 inches, in small but very clear type. It is profusely illustrated. Its binding is strong, pliable, and serviceable. The price seems to us very moderate. That it is up-to-date goes without saying.

A Text-Book of Materia Medica is not a new thing, but one that includes laboratory exercises in histology and chemistry for the examination of drugs is a new and a very promising departure in the teaching of this subject. The authors, Dr. Hatcher of Cornell University, New York City, and Dr. Sollman of Western Reserve University, Cleveland, Ohio, have done a fine initiative work. We heartily recommend it to students and physicians of both Medicine and Pharmacy. The Publishers, W. B. Saunders & Co., have made a fine, flexible leather-bound book of this work at the reasonable price of \$2.00.

Prof. Charles L. Dana's *Text-Book of Nervous Diseases and Psychiatry* is before us in its sixth, revised and enlarged edition. This book of 690 pages, is economically typed, well illustrated, well printed and is sold at \$4.00 by Wm. Wood & Co., New York. It is a masterpiece written by a master of his subject, who while a psychologist is evidently also a pedagogue. One may know a great deal and yet not know how to impart knowledge; while one may know little but know well how to impart it. This

Croftan says that the term "physiological albuminuria" is a misnomer. See his new book on *Clinical Urinology*.

According to Croftan the transudation of serum albumin always means impairment of the renal epithelium.—*Clinical Urinology*.

book seems to us to be a model of thoroughness and careful teaching, and this without overburdening the receptive mind. A man who becomes acquainted with this book early in his medical career will find in it a most valuable friend for consultation through life.

The seventh edition of Hyde and Montgomery's work on *Diseases of the Skin* is an immense improvement upon their first editions. Both newly-discovered diseases, and newer pathologies of old and well-known and classified skin diseases and their treatment are fully represented in this book. This volume brings to us the latest and best we have seen in this department of medicine. We miss in it too many of the old classic names of skin diseases, with which the authors seem to have been unwilling to burden their pages. We indulge the hope that some day the interest in medical history will become more popular and then authors will mind things we are missing now. The book contains 938 closely-printed pages, well illustrated and well-indexed, and is printed in the good style characteristic of Lea Bros. & Co. Philadelphia, 1904. Price, \$4.50.

A Text-Book of Clinical Diagnosis, by laboratory methods, written by Dr. L. N. Boston, will prove an invaluable boon to all those students and physicians to whom modern diagnosis is not a mere ornament but a vital and conscientious part of his attention to the patient who is intrusted to his responsible care. It is not always convenient to send a clinical specimen for a laboratory examination, nor is it best for the physician to know nothing about laboratory clinical work. Division of labor is good in laboratory

work, too, but ignorance of it is bad. We think this book as a reference guide will be a source of a vast amount of modern diagnostic knowledge to any studious physician.

Kirkes' favorite *Handbook of Physiology*, is now out in its fifth American edition, revised by Prof. Busch of the Medical Department of the University of Buffalo. Physicians who have used this book will be glad to know that it is again up-to-date in the science, and that they can recommend it as heartily as they have done before. The book is not exhaustive, but neither does it neglect anything, and so keeps the true medium for the benefit of the working student. Published by Wm. Wood & Co., New York, 1904. Price, \$3.00.

A great deal of physiology is given us in the second revised and enlarged edition of Dr. Charles E. Simon's *Physiological Chemistry*, indeed a far greater part than is, or perhaps can be given in ordinary text-books of physiology. The student and the studious physician will find in this volume of 483 pages an answer to many a question that may arise in him as to what becomes of this, that or the other foodstuff that is ingested. The book is certainly excellent.

With one thing, however, the author is unsatisfactory to us, viz., with his doctrinarian assumptions of the mechanical theory of life, to which he devotes, almost partisan-like, many a paragraph in the introduction. It is unsatisfactory because it is not the result of the latest researches in biology. The mechanical idea is and always will be the only analogical and comparing way by which,

Any factor that causes the flooding of the blood with poisonous products may produce temporary albuminuria—danger!—Croftan.

Minimal albuminuria, though it kills no one, should not be misunderstood; it may terminate in true diffuse nephritis.—Croftan.

in our honestly-acknowledged human limitations, we can ever hope to get any understanding of life so as to usefully apply it to hygiene and therapy. But it is and always will be illegitimate to identify the thing we seek to know, and which eludes us at every turn, with the thing which we grasp a little better. We could well wish the author had read Dr. Max Neuburgers' historic sketch: *Die Anschauungen über den Mechanismus der spezifischen Ernährung* (The views concerning the Mechanism of Specific Nutrition) which was published a year before the author's first edition of *Physiological Chemistry*. In that case the author would have given his readers some idea of the present neovitalism, or biomechanism.

We may add that there is in this edition an excellent appendix of forty-eight laboratory exercises and that the mechanical parts of this book, which are so vital, are excellent. Lea Bros. & Co. Price, \$3.25.

Diagnosis from the Eye, by Dr. H. E. Lane, belongs to that class of books which emanate from physicians who, dissatisfied with the lack of omnipotence in the most prevalent medical school of the past and present, scold it as allopathy and its practitioners as murderers, liars, deceivers, etc., and see in themselves the true world-reformers, who in alliance with Nature (every letter in capitals) will save the race if it will listen to them. Of course they are antivaccinationists, antivivisectionists and anti-everything. Yet were we to turn our backs upon these, our step-brothers, we would be wrong. For there never was nor is any proposed system or method in any department of human imperfect life that does

not contain grains of precious golden truths, and we of the old school, especially as alkalometrists, can not afford to neglect any truths, come they from friend or foe, from the cultured or the crude, with, or without a "c." We acknowledge accordingly the value of the book before us for the discriminating physician, although not to the extent of its author's claims. We, too, are utilizing the powers of Nature, but would no more confine ourselves and patients to her unreservedly, than we would to the problematic Christian and pseudoscientist, Mrs. Eddy.

The book is published by the Kosmos Publishing Co., Chicago, at \$2.00.

The Illinois State Board of Health sends us its *Report of the Sanitary Investigations of the Illinois River and Its Tributaries*, with special reference to the effect of the sewage of Chicago on the Desplaines and Illinois river prior to and after the opening of the Chicago Drainage Canal.

As a sanitary success this canal is the most remarkable one in the history of city sanitation in the world. We recommend the book to our friends in St. Louis. They can probably get it gratis, postage prepaid, by writing to Dr. James A. Egan, Secretary of the State Board of Health, Springfield, Ill.

Of Saunders' *Question Compend* appears in a sixth thoroughly revised edition, *Essentials of Medical Chemistry*, by A. F. Witmer, Ph.G. It is always in the interest of author and publisher to keep up a standard publication to date in information. This was faithfully done in this book. A useful book for physicians as well as students. Price, \$1.00.

Intermittent albuminuria may be due to (1) nervous influences; (2) exposure to cold; (3) diet; (4) overexertion.—Croftan.

Cyclic albuminuria is the periodic fluctuation of albumin excretion during the 24-hour period; may be combined with intermittent.

CONDENSED QUERIES ANSWERED

PLEASE NOTE.

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES.

ANSWER TO QUERY 4417:—In a previous number I saw an inquiry for a remedy for cracked hands or eczema of hands, and in the September CLINIC an answer to 4417. When I saw the query I proposed to make reply, but did not, from sheer inertia. Several times, in different journals, I have given my remedy for that condition, which has always proved a specific. Let the person so afflicted thoroughly wash and dabble in the fresh and flowing blood of a slaughtered animal and he will find a cure. It will cure every time. Indicated remedies can and ought to be exhibited.

BEE STINGS:—On page 958, September number, Dr. Shafer complains of bee stings. Let him smash up an onion and apply to the part. Also I have found a strong solution of ammonium muriate very effective. For febrile symptoms aconite is the remedy. For the sensation of burning and tingling rhus tox is the remedy. For all venom, echinacea is highly lauded.

G. P. BISSELL.

Cloverdale, Oregon.

ANSWER TO QUERY 4452:—"Adrenalin Chloride for Dropsy." In reply to this query we are in receipt of a letter from Parke, Davis & Co., enclosing a paper written by Dr. James Barr and published in the *British Medical Journal* of March 19, 1904. Dr. Barr describes the treatment of a number of cases of serous effusion, including those of the pleura, pericardium and peritoneum, with injections of adrenalin chloride so-

lution into the serous cavity. Usually the serum was first aspirated, but the adrenalin was given with a view to a limitation of the secretion, and it seems to have generally proven effective. The following case taken from this paper is illustrative of its action in the peritoneal cavity:

"In a case of tuberculous peritonitis and ascites 200 fluid-ounces of serum was drawn and two fluid drams of solution adrenalin chloride introduced into the peritoneal cavity, with four pints of aseptic air. Thirteen days later 237 fluid ounces of serum was withdrawn and two fluid drams of adrenalin chloride solution and two pints of air (to prevent adhesions) were injected. Upon a third occasion, eleven days later, 196 fluid ounces of serum was obtained by tapping, and three fluid drams of adrenalin chloride solution and four pints of sterile air were injected. No reaccumulation of fluid occurred."

—:o:—

This method of giving adrenalin is new and seems worth trying in selected cases. Consult Dr. Barr's paper for more information.—Ed.

ANSWER TO QUERY 4289:—"Gassed" means inhaling gas given off from oil wells and tanks containing crude oil. One inhaling this gas is affected in accordance with the amount inhaled, from a slight faint feeling to inhaling a sufficient quantity to cause instant death. The treatment is artificial respiration, which will aid in getting rid of the gas in the

lungs just as one would get rid of the water in the lungs of a drowned person. Oxygen can be used with advantage in these cases. Give glonoin, strychnine, etc., for heart, also use stimulants for

warmth. Get rid of gas by artificial respiration; get fresh oxygen into the lungs; stimulate the heart.

R. W. SMITH.

Bennette, Texas.

QUERIES.

QUERY 4517:—"Eczema." I have a patient that has a breaking out around the mouth; it forms a scab like eczema. It will yield to treatment and get smooth and in just a month it will appear again, clear around the mouth. It lasts four or five days and is gone. It comes on the 15th of the month. Will you kindly tell me what it is and what will stop its return.

A. C. C., Iowa.

We suggest that you give this patient calomel and iridin, one granule of each half hourly for four doses every third night, then a saline laxative before breakfast in hot water. Six granules or pills like the following—pulverized sulphur, gr. 1-134; extract nux vomica, gr. 1-67; podophyllin (neutral), gr. 1-67; collinsonin, gr. 1-134—should be taken after each meal and before eating take a digestive tonic; at the mid-hour between meals let him have two of the antiscorbutics. Calcium iodized gr. 1-3; phytolaccin, gr. 1-3; stillingin, gr. 1-6; arsenic iodide gr. 1-67; nuclein, gtt. 4. This is an eczematous affection.—Ed.

QUERY 4518:—"Catarrh." I have a great many cases of chronic catarrh to treat. Have been using a wash of acid carbolic, witchhazel, Lloyd's hydrastis and glycothymoline.

Also: Sodium bicarbonate, borate, chloride, benzoate and oil of gaultheria. Have also used catarrh ointment. Internally have given creosote, keeping bowels well open with saline laxative.

These cases are chronic when I first see them. I want a first-class general treatment.

W. M. W., Mississippi.

Serum-albumin and serum-globulin always have a pathologic significance; more than 1 pro mille in urine means nephritis.—Croftan.

There are two secrets in the treatment of catarrh. One of them is the correction of autotoxemia, by keeping the bowels clear and aseptic, with saline laxatives and intestinal antiseptics; the other is to keep the diseased surfaces clean from the collection of dead matter in which decay and microbic action may occur. For this flush the nostrils and the nasopharynx three or four times a day with some cleansing solution or wash—salt water impregnated slightly with listerine, glycothymoline, menthol comp. or some similar preparation. Add the use of an antiseptic with oil atomizer, to medicate, coat over and protect the diseased surfaces. This treatment has proved quite effectual. You must remember, however, that it requires a long time to favorably affect a chronic catarrh, hence make the cleansing habitual for the patient, just like cleansing the teeth.—Ed.

QUERY 4519:—"Asthma in Child." I have on hand a case of asthma in a child of six years. She has had the asthma for two years. I have tried the usual remedies without results. What shall I do?

W. K. C., Arkansas.

We suggest that you give the following solution: Glonoin, apomorphine, strychnine arsenate and hyoscyamine, one granule of each in ten teaspoonsfuls of water. Give a half teaspoonful of this every fifteen minutes during the

Remember that in most cases the fundamental cause of an albuminuria is autotoxemia—poisoning of the renal cells.

spasm until relief follows. During the interval strychnine arsenate, gr. 1-134, and atropine, gr. 1-500, every four hours and calcium iodized every three hours. Keep the bowels freely open and aseptic. Ed.

QUERY 4520:—"Nephritis." The patient: female, 35 years old; five feet ten inches tall; weight 125 pounds; chest measure, 36 inches, at expiration 35, inspiration 38; complexion pale, sallow; puffy eyelids, temperature, subnormal, 97° F.; pulse, 60; rhythm interrupted; no organic lesion, have found albumin in large quantities at times, but not permanently present; the patient is not addicted to any pernicious habits—has been under my care for eight months; have given her sanguiferrin for anemia, and strychnine arsenate, for three months; also hepatic tablets. She improved very much—gained ten pounds in that time. Two weeks ago she was attacked with an uremic attack; passed about three ounces of urine in three days; peculiar headache. She described it as if her head was too large; laid perfectly still and stared; could not speak nor move for twelve hours, in fact was comatose. The head was retracted and the limbs rigid. She is now about again, but looks cyanotic. Says that she feels better before the attack.

M. O. E., Illinois.

Our laboratory report shows a nephritic condition, with pus and epithelium. We shall be pleased to hear of the conclusion of this case, and suggest that you give her calcium and lithium carbonates morning, noon and night, and a saline in a glass of *hot* water before breakfast. At the same time give a milk and fruit diet, collinsonin three granules, chimaphyllin three, every three hours while awake.—Ed.

Tumors that compress the kidney or its vessels may cause temporary albuminuria that changes with the posture.—Croftan.

QUERY 4521:—"Glaucoma." "Debility." 1. Mrs. R.; white; age about 65; tall, slender, lean; brunette, decidedly. Mother of several children; family history negative; previous health good for forty years. A year ago had fever, presumably malarial, with severe headache, continuing near two weeks. Treated by another physician. Soon one eye began to fail, with symptoms of glaucoma. The vision grew worse until now it is totally gone from one eye. This summer she had fever again, with some vesical irritation, with little but home treatment for nearly two weeks when I was called to see her. Fever promptly gave way to antimalarial treatment. Some weeks after recovery the remaining good eye was attacked as the other had been before. Before the sight was entirely gone an oculist did an operation—don't know what—since which she has grown rapidly worse and is now almost totally blind. Both eyes retained their normal color till after the operation. They now appear cloudy or milky. Can anything be done for her?

2. Mrs. L.; white; age 65; multipara; short, fleshy; family history negative; previous health good, except probably a mild rheumatism several years back. I was consulted August 2. Symptoms vague; bowels, kidneys and bladder good; appetite poor; circulation weak, with rapid pulse; dizzy, swimming feeling with some pain in head; slight fleeting pains in different parts, very evanescent. Cleaned out and ordered sulphocarbolates. August 6. Feet and legs to knees subjectively cold. Other symptoms remain. I ordered sodium salicylate, gr. 10, every two hours for six doses, first day; five doses second day; four the third day, then three times a day. Also elix. iron, quinine and strychnine three times daily. August 15. No change in symptoms, and quite weak. Please suggest treatment.

O. F. B., Texas.

1. We fear that blindness is inevitable in this case. Glaucoma is sometimes ar-

Remember that there may be an extrarenal albuminuria—albuminous fluids entering the urinary tract below the kidney.—Croftan.

rested by an early operation—usually an iridectomy—but when the disease is far advanced nothing can be done to restore the sight.

2. We cannot make a diagnosis from the information furnished. The heart should be carefully investigated and the urine examined chemically and microscopically. Meanwhile give this woman cactin, one granule; strychnine arsenate, gr. 1-67, one granule; and digitalin, one, every four hours while awake. The anti-rheumatic (colchicine, aconitine, digitalin and strychnine) should be taken an hour before and a digestive tonic with meals. Keep up salines every other morning and give five grains of sulphocarbolates with a little water an hour after eating. Light, nourishing food and a daily salt rub, followed with friction with a rough towel to stimulate capillary circulation.—Ed.

QUERY 4522:—"Burn." A boy, aged fourteen years, was burned on the right hip and between the limbs to the extent of 8 x 10 inches of surface, perhaps; but the tissue was cooked on the hip and has sloughed off, perhaps in worse place 3-16 of an inch or less, baring some little capillary vessel, which bleed some under H_2O_2 5 per cent solution. I first dressed in carron oil, then after a week changed to olive oil and salicylic acid, which seemed too severe. I then cleansed every day on account of some pus, with H_2O_2 5 per cent, and apply an ointment of zinc oxide, one ounce to four ounces of benzoated lard, and keep soft by applying castor oil once in twenty-four hours. The boy is extremely nervous and raises the neighbors when I dress it. There is some pus and a little blood. How can I do better as to dressing and for pain? Internally I give one triple arsenate with nuclein six times a day, also one antiscorbutic granule six times a day, keeping the bowels open with saline laxative.

Remember that extrarenal albumin usually settles to the bottom of the vessel; but do not overlook possibilities of error.—Croftan.

He eats well and passages are normal, except urine a little too frequent, on account of eating considerable fruit. The edges of burn are healing in some. Would it not be a good idea to skin graft by rubbing cuticle off of a clear arm? Or will the little pus forming prevent the grafting as I have to use the H_2O_2 to cleanse?

T. R. W., Ohio.

In answer to your recent favor you cannot do better than clean off the lesion with weak peroxide of hydrogen solution, dry thoroughly and dress with iodoform and bovine dressing. The bovine people will send you full instructions as regards the method of applying this dressing, on request. In fact iodoform gauze applied and kept soaked with bovine will prove efficacious. Great care must be taken as regards asepsis. After a few days, when healthy granulation begins, graft by all means, using very small pieces of skin, and again dress with bovine. The writer has, by this method, covered some large spaces with healthy and almost normal tissue. Internally you cannot do better than give the triple arsenates with nuclein. You will find the pain cease as soon as bovine is applied.—Ed.

QUERY 4523:—"Appendicitis." Please give me your treatment for subacute or chronic catarrhal appendicitis, and large deposits of white urates, in a person suffering from goiter.

S. D. R., Mississippi.

Place this patient upon a diet exclusively of hot milk and fresh fruit juices. Give him a small teaspoonful of saline laxative in a glass of water every morning, on rising, and 5 or 10 grains of sulphocarbolates every two hours during the day. Every night before retiring the colon should be flushed with warm saline solution, containing from one-half to one

Goldberg's rule: A cubic millimeter of sediment containing 50,000 pus-cells, the albumin in filtrate must not exceed 0.1 per cent.

grain of zinc sulphocarbolate to the ounce. I believe if this treatment is persisted with for at least a month there will be a very material change in this condition and that a cure is within easy reach.—Ed.

QUERY 4524:—"Catarrh." I have been afflicted with catarrh for thirty years, but have never been able to find anything that will benefit me. My greatest trouble is a constant flow of thin, watery mucus that drops behind the palate and causes me to clear the throat a great deal to keep it from running into the lungs. I don't spit up much, but have to swallow the thin, foamy mucus, which causes indigestion. The trouble all seems to be in my head and throat—lungs are not affected at all. If I had the right kind of constitutional treatment, then a local treatment might benefit me.

L. A. G., Indian Territory.

There are two points in the treatment of catarrh: One of them is to keep the bowels clear and aseptic with a morning dose of saline laxative and a sufficiency of sulphocarbolates. Secondly, the local treatment must be regularly carried out for an unlimited period. I would suggest for this the use of some such a remedy as glycothymoline or menthol compound, until the mucus is cleared away and the diseased surface uncovered, then the use of euarol with an oil atomizer, and this should be continued until the disease is cured, which may be a long time. Prof. Chapman, of Jefferson Medical College, told me once that he used cleansing applications to the nose just as he washed his face, cleaned his teeth and said his prayers, as a part of the regular routine of the day.—Ed.

QUERY 4525:—"Coughs." What is the best all-round remedy for winter

coughs; one that can be made in solution and will keep?

J. A. B., Arkansas.

The best single remedy is the modification of Dover's powder, consisting of morphine sulphate, gr. 1-134; emetine, gr. 1-250, and camphor monobromated, gr. 1-12. These granules may be dissolved in water or triturated with syrup, but are best dispensed as granules. The problems, however, presented by winter coughs are so numerous that it is contrary to all the teachings of alkaloidal medication to prescribe a single remedy for all.—Ed.

QUERY 4526:—"Hydrocele." When a hydrocele has been punctured every year or two for a number of years, and you find a thickened sac and adhesions, and cannot draw off all the fluid, even by three or four introductions of the trocar and canula, how would you manage? Would it be safe to inject fluid extract of *Thuja occidentalis* when all the fluid was not drawn off? Would the balance be absorbed and a permanent cure affected?

E. S. E., North Carolina.

If you had the "Treatment of the Sick," you would not ask such a question. Better get it, Doctor, and see if the reply to your query there is not alone worth the price of the book. I have for twenty-five years employed the method of drainage by Southey's tubes, in hydrocele, without a failure, finding it simple and easy, painless and efficient.—Ed.

QUERY 4527:—"Diarrhea." I have a patient who has been suffering from diarrhea for several months. Her husband (a physician) and I have failed to cure her, though I have used intestinal antiseptics. She is about twenty-six years old and has two children; no taint of any kind. Bowels do not act often during

The determination of the variety of albumin found in the urine often gives much light; albumin in urine not necessarily Bright's disease.

Nucleo-albumin in the urine signifies the degeneration of epithelium, either within kidney or from catarrhal conditions lower down.

the night, but five to six times during the day.

W. C. L., Alabama.

I am always uneasy about a diarrhea occurring in the morning, having several times found ulcers near the sphincter to account for it. Have her husband examine, Doctor, to be sure. In the next place have her bowels flushed with as hot water as she can bear, every morning, using a colon tube; then give during the day about thirty-five grains of sulphocarbolates, seven granules of silver oxide, gr. 1-6 each. Restrict her diet to milk, fruit juices, coffee without sugar, and strained soups; but if the diarrhea is tuberculous you will find your remedies in cotoin, and calcium sulphocarbolate.

—Ed.

QUERY 4528:—"Arthritis." "Puerperal Woman." "Worms." "Enuresis."

1. A man has a stiff elbow joint, from an attack of acute articular rheumatism. Treated with calcalith, salithia, etc., and he recovered nicely and promptly, but it left his elbow-joint stiff. No pain whatever on motion—just stiff. I ordered hot olive oil massage every day, with as much effort as possible at passive motion. He is thirty years of age and strong. He will not submit to taking chloroform and having adhesions broken up.

2. Please give me full instructions about the lying-in woman having her shoulders kept low down in the bed. How long should this be done? I think I understand the why: It allows the circulation to flow more equally from pelvic region, thus having an effect to hasten involution, and also keeps down blood stasis in pelvic viscera and any inflammatory tendency. How's that? Prevents too much blood gravitating to pelvic viscera.

3. What's the difference between thread worms, seatworms and pinworms?

The nucleinic acid is derived from the nuclei of degenerated cells; taurocholic acid may form similar compounds, in jaundice.—Croftan.

Is this all one worm with different names?

4. Girl, eleven years old; since two years old has been wetting bed nearly every night, same trouble through day. Has to go at once when she feels desire. Seems to be very spasmodic; or better, the bladder seems to be very intolerant of its contents—hyperesthetic. She is delicate and from a nervous-tempered parentage. Has tremendous appetite. Sometimes has to bathe the vulva—says the parts itch and burn. Have seen no worms. Can it be worms? She passes great quantities of urine; mother expresses it: "Just drowns in it." No diabetes. Have given atropine with no results. Cantharidin and rhus seems to increase the trouble, showing hyperesthesia. Can I use euarol in this case? If so, how?

Mother says: "Sometimes her water is clear, then colored, but it makes no difference with the incontinence." Possibly I don't give enough atropine to the girl with enuresis—gave gr. 1-500 at three, six and nine o'clock. How about gr. 1-250 every four hours through day?

W. S. W., Georgia.

1. In the case of rheumatism I would advise you to inject thiosinamin hypodermatically over the affected part, beginning with one grain and increasing to five or six grains if he bears it well, repeating the injection three times a week. Do not expect much results under a month.

2. There is no special reason for keeping the shoulders of a "lying-in-woman" depressed excepting in hemorrhagic cases; in fact I have known physicians who got the patients out of bed the day after confinement, although my rule has been to keep them in bed for nine days, and to their room for a month when their means permit it. When this is impossible I believe it is a wise thing to give them a grain of berberine a day for a month,

Necleo-albuminuria found in many infections, toxic nephritis, croupous pneumonia, after chloroform and in icterus.—Croftan.

to insure contraction of the stretched ligaments and of the uterine connective tissue.

3. Threadworms, seatworms and pinworms are identical.

4. In enuresis I advise the use of cantharidin, gr. 1-500; a granule three times a day, gradually increasing until slight irritation of the bladder is manifested, with hyoscyamine or atropine valerianate, gr. 1-250 at bedtime, increasing if necessary. But you had better examine the urine, which may be too acid or contain oxalates, sugar or albumin. Threadworms may also deposit their eggs at the mouth of the meatus and cause irritation.

If the above measures fail you will have to make an examination and pass a sound through the urethra, when if you find it hyperesthetic you should inject euarol (europhen and aristol in oily solution) three times a week for a month, letting a few drops pass into the bladder, after first washing out its cavity with warm saturated boric acid solution. You had better regulate the digestion and the diet also, beginning by examining the urine or having it examined at the laboratory. If distinctly hyperesthetic, in addition to euarol you can with great advantage give arbutin, gr. 1-6 seven times a day. If the urine is pale and acid it contains oxalates, and then a few drops of nitric acid before meals will correct matters. Enuresis is by no means a simple matter, to be treated by one remedy or method, as it is a symptom of a condition which may be local or general, and if neglected may establish a pathologic condition which is apt to end in permanent destruction of health, death or insanity.—ED. *

QUERY 4529:—"Glossitis." I have a case, a woman of good family, who has a sore mouth. On the tongue are white spots, slightly elevated, of irregular shape, which are sore and burn. There are also spots on the cheeks: white, elevated, with red edges. I have tried for six months but have found nothing that has made any impression on the condition. In other respects the patient seems well, no indigestion, bowels regular, and all functions working well.

The tongue always has a thin white coat. I have tried locally chlorate of potash, nitrate of silver, nitric and sulphuric acids, hydrastis, and a number of other things of like character.

A. E. G., Ohio.

Let a dentist make a careful investigation. Sometimes the discharge from a carious tooth causes irritation of the tongue. In the meantime let the lady use her toothbrush on rising, and after each meal, with a mild antiseptic like glycothymoline, listerine or menthol comp., and let her use an intestinal antiseptic tablet (sodium, zinc and calcium sulphocarbulates) as a lozenge six times a day, holding the tablet in her mouth until the taste becomes too bad to be endured any longer, and then let it be swallowed. The disease I believe to be a mycosis; in other words, a bacterial infection of the mucous membrane of the mouth.—ED.

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QUERY 4530:—"Salivation." Patient aged twenty-three years, male. Eighteen months ago was salivated by taking eight compound cathartic pills and drinking lemonade. Gums swollen and dark red. If he eats anything sweet or sour, saliva flows freely, mouth gets sore. Has been to the Hot Springs and taken baths, but no benefit. What treatment can I give to benefit or cure this patient?

A. H. C., Mexico.

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Albumose and peptone are degradation products of proteid, formed in digestion; also produced by ferments in blood.—Croftan,

Albumose is much more abundant in the intestine than peptone, the latter found only in intestinal stagnation or infection.—Croftan,

Let the patient take one granule of atropine, gr. 1-250, three or more times a day, enough to keep his mouth dry. Secondly, berberine, gr. 1-6; let him use seven a day, holding them in his mouth as he would a lozenge, until entirely dissolved. Continue this treatment for a month and I think there will be no further difficulty. If you have reason to believe the mercury is not all eliminated, put him on a course of calcium iodized, using about seven grains a day, choosing that preparation of iodine because the reconstructive effect of the lime will combat the destructive effect of the mercury upon the cell walls. This I would not begin until the other remedies have had a distinct effect for good.—ED.

QUERY 4531:—"Epilepsy." In the August CLINIC is an article entitled "Some General Remedies." In writing of *santonin* it is said: "Very large doses cause twitching of the head muscles, rolling of the eyes, grinding teeth, followed by epileptiform convulsions, etc." Further it is said: "Lydston gives it for epilepsy—begins with doses of gr. 2 to 5 in adults, and pushes it to tolerance." If large doses produce such symptoms as we are trying to avoid, where comes in the sense of pushing the remedy to toleration? Would we not get a better effect by trying to get the result of minute doses, as we get in the case of *ipécac* for emesis? If it takes two days to eliminate one dose, certainly some kind of action must be going on meanwhile. I have been consulting some homeopathic works but do not find *santonin* in any of them recommended for epilepsy; yet it would seem to be indicated along the lines of *similia similibus*, and they use it on that principle in color blindness and enuresis. How about *lecithin* in epilepsy? Within a few days somewhere I read of a case of epilepsy being treated with it, not only internally but exter-

nally, with an ointment containing it, and no recurrence after three years. What do you think of that?

C. E. Y., South Dakota.

Your question as to the dosage of *santonin* in epilepsy is one that must be answered by the clinician. We may theorize as to why a thing helps, but our theories should be made to fit the conditions present and not *vice versa*. *Similia* is an explanation that does not explain. Take, for instance, the benefit obtained from strychnine in many spasmodic conditions—*Similia* says strychnine is of benefit because it causes spasm, but as to why it should thus benefit, no explanation is vouchsafed. We say that spasm is an indication of deficient control by the nerves over the spastic fibers, and that strychnine, by increasing the control of the nerves, restrains the spasm. The dose proper in such cases is the one which will just accomplish the object, be it little or great. The same reasoning applies to the use of *santonin*.

Lecithin is a very interesting substance—an attempt to apply the most recent discoveries and theories in physiology to the solution of the problems present in practice. Its use in epilepsy is, therefore, experimental and deeply interesting. For my own part I believe that in the careful study of the urine we will find the indications for the treatment of epilepsy. The ordinary processes for the manufacture of *lecithin* are destructive to it. Anyone can make a salve of it, if they have true *lecithin* to begin with.—ED.

QUERY 4532:—"Septicemia." Male, age sixty-five; heart and kidneys normal, slightly costive. Four weeks ago, while making ties, the axe separated the little

Disease of the gastrointestinal tract is a common cause of albumosuria; cancer of stomach and atrophic processes.—Croftan.

During the puerperium, albumosuria is found in the urine; derived from the absorption of albuminous debris.—Croftan.

toe and cut into the foot. This wound became infected. About two weeks after the injury he had from one to two chills daily for a few days. Temperature 104° to 105° F., foot and leg up to knee swelled. Now there is a subnormal temperature of 1° F., pulse 68, foot and ankle edematous, pit when pressing with finger. I opened foot on side, took off little toe; a "tough" pus seems to be all through the foot and ankle. Treatment: Calcium sulphide, gr. 6 to 15, in twenty-four hours; echthol part of the time; quinine and strychnine, laxatives, and diuretics. Bathe foot and leg in hot water two or three times daily, and keep hot cloths on all the time. He has pain in shoulders, very little in foot and legs. Eats enough for a sick man and digests his food. Should the foot be amputated, or the skin and subcutaneous tissues separated in two or three places, from one end of foot to the other, or give medicine only?

L. G. H., Missouri.

Give this man echinacea, beginning with one tablet every hour and increasing until he has taken five or six, treating the original wound antiseptically. Keep his bowels clear. I have always found that even when secondary abscesses were formed, the most virulent pus was at the original focus, where it must be destroyed either by chemical germicides or by operation. If you have Crede's colloidal silver I would advise its use. You can obtain it by writing to Schering and Glatz, 55 Maiden Lane, New York. They will send you literature describing its use. Lecithin can be used hypodermatically, with benefit.—Ed.

QUERY 4533:—"Chronic Malaria." Man, 56, for the last forty-two years has been troubled with malaria. His left side is numb and cold and his feet also numb. His spleen is enlarged and he can't lie on his left side and can't stand any work,

Most important form of albumosuria is the pyrogenic; found whenever there is pus in an enclosed cavity.—Croftan.

he is so hot; then he gets stiff and sore. Please suggest. I give him quinine and arsenic, result good, but don't get entirely well. I also give him calomel to clean out.

H. N. D., Missouri.

First, clear the alimentary canal with calomel, followed by a saline laxative, then disinfect by thirty-five grains of zinc sulphocarbolate a day. Third, contract the spleen by one to seven grains of berberine daily; and fourth, destroy the parasites forced out into the circulation by a grain of quinine arsenate daily. This treatment is to be continued for one month; at the end of which time the blood should be examined. This should also be done at the beginning of the treatment, that a fair estimate as to its value may be made.—Ed.

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QUERY 4534:—"Malaria." I have a few cases of chronic malaria on hand. I have been using berberine muriate and quinine arsenate, with elimination, and am not getting the results that I desire. In all my cases there is considerable enlargement of the spleen, and the remedies mentioned do not seem to reduce the splenic enlargement at all. Will you please give me some information as to the best way to administer alkaloids in these cases?

R. L. H., Arkansas.

It is quite impossible to reduce the spleen if the bowels are not kept clear and aseptic. I advise calomel followed by saline laxatives, and then from 30 to 40 grains of sulphocarbolates a day; with 1-6 gr. each of berberine and quinine arsenate, together, seven times a day. There is a very useful German method, which consists in putting the patient into a hot bath and projecting against his abdomen a quarter- or half-inch stream of

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Albumosuria combined with polynuclear leucocytosis signifies that there is pus somewhere in the body.—Clinical Urinology.

cold water, under the surface of the hot water. The English method, of rubbing into the skin over the spleen ointment of red iodide of mercury, then roasting it in by exposure of the part before an open fire, or in hot sunlight, is of value. But, in case the foregoing treatment is not effective I would rapidly increase the berberine to seven or ten grains a day.—Ed.

QUERY 4535:—"Stillingia in Malaria." Some time ago, in relation to malaria, I queried how would bichloride and potassium iodide treatment for sixty days do? Last summer I had a man apply to me, and from his statement I put him on five-grain doses of iodides, with syrup stillingia. This summer he came back and asked me to put him up a big bottle of the same medicine. I asked him for an explanation and he said he was having chills last summer when he began taking it and had not had one since, and never was in better health in his life. His children were now having chills and he proposed giving it to them. They have required no further treatment for chills. Only one member in a large family escaped malarial fever last summer, and he was taking the bichloride and potassium iodide for syphilis, and was the most exposed member of the family. This summer he is still free from malaria, but is only taking the iodide. What do you think of it? Of course this proves nothing, but I am going to test it in some obstinate cases.

J. M. W., Texas.

Iodide and bichloride have been used by others with success. We make a note of the suggestion in the CLINIC to see what the "family" know of the combination and what they think of the idea of the addition of stillingia.—Ed.

QUERY 4536:—"Exophthalmic Goiter (Traumatic)." Male, fifty-one years old, laborer, always well until about one year

ago, when he fell on head and shoulders out of a railroad car in which he was working. He was picked up unconscious, and from that time dates his trouble, which is now a well-developed case of exophthalmic goiter. He complains mostly of shortness of breath, cannot lie down to sleep or rest, morning headache and pain in the eyes, fast pulse and very nervous, in fact, all the usual symptoms. Appetite and bowels good. The goiter is well developed on one side, slightly on the other, is very vascular. He has been the rounds of all the old doctors without even temporary relief. Urine slightly albuminous, granular casts, specific gravity 1020, urea and quantity deficient.

N. A. K., Illinois.

In this case I would advise a morning dose of saline, sufficient to flush the bowel; then put him on hyoscyamine giving him a granule, gr. 1-250, every hour until the mouth begins to dry; then give another granule whenever this subsides, the object being to keep up the slightest evident effect persistently, never allowing it to subside altogether. The albuminous urine is best met by the use of a diet from which all salt is radically excluded. Also give a granule of veratrine, gr. 1-134, three times a day, and note at least once a week the condition of the urine.—Ed.

QUERY 4537:—"Cystitis." What can you tell me about this Mr. K., from the urine specimen after examination? He is quite a feeble man of sixty-five or seventy. One doctor told him he had an internal growth and needed an operation. He appeared to have gastritis, spitting of stringy and heavy mucus, rising from stomach rather than bronchial tubes. This was more in the morning than during the day. Tongue heavily coated. Frequent urinating during night as well as day. Poor appetite and distress after some meals. I cleaned him out

The fine thing about Croftan's Urinology is that it explains the meaning of the things found in the urine. Price only \$2.50.

William Wood & Company, New York, are the publishers of the Croftan Urinology; get a copy—its full of "meat."

with calomel and podophyllin, followed by saline laxative, twice during the past week, with great benefit. Tongue cleaned up, less nausea and vomiting in morning and less rising of mucus during the day.

He feels very weak and has been running down for the whole year past, has short breath on the least exertion, even riding in a wagon, if with any rapidity, is exhausting in this particular. A year ago he had general anasarca. A physician relieved him of that condition this spring, but left his stomach so sensitive he could retain nothing and was in that state when I took charge a week ago. The condition of urine is improved, although it is still of horrid stench. He is better in every particular.

Present treatment is: Digestive tablets two three times a day; nux vomica, 2-10 grain about four times a day; caroid and charcoal after meals. For a couple of nights I gave him the alkaloidal diuretic granules, two at night, but it increased frequency of urine so that it was discontinued. I apprehend arbutin will be good for him. About three pints or less of urine in twenty-four hours; specific gravity very low. Flesh was flabby two weeks ago—is now becoming firm. Thinks if he only had a little longer breath would be all right.

O. J. T., New York.

You unquestionably have a case of cystitis. It is possible, of course, that this man has a tumor of the vesical walls, but it is more than probable that it is a sacculated bladder from which he suffers. There is residual urine somewhere, and you will probably find that he passes a certain quantity and that in an hour or so he passes the balance, which has been retained in a pouch at the rear of the bladder. The liver is also torpid, and the system in this case generally is in an atonic condition.

Your treatment is fairly good but we would suggest much more vigorous

steps. Calomel and iridin one, podophyllin one, half-hourly for four doses every other night; saline laxative a teaspoonful in a glass of hot water the next morning before breakfast; barosmin four, cubebin two, and lithium benzoate one grain, with a glass of water between meals; before meals digestive two granules (see next query for formula), caroid and charcoal after eating, and an hour later five grains of sulphocarbolates with a half glass of water; morning, noon and night dosimetric trinity, one granule (aconitine amorph, gr. 1-134; digitalin, germanic, gr. 1-67; strychnine arsenate, gr. 1-134), to equalize the circulation. This treatment should be continued for two or three weeks and then changed to suit conditions present.—Ed.

QUERY 4538:—"Dosage of Alnuin." In using alnuin for clearing the complexion how would you advise giving it? Patient otherwise in perfect health, bowels regular, etc.

E. G. P., Wisconsin.

To get the best results from alnuin give a saline freely in hot water before breakfast; calomel and iridin one, half-hourly for four doses every second or third night; two alnuin granules every three hours, with two xanthoxilin; four sulphur compound (pulverized sulphur, gr. 1-134; extract nux vomica, gr. 1-67; podophyllin neutral, gr. 1-67; collinsonin, gr. 1-134) after meals with one digestive (strychnine arsenate, gr. 1-134; quassin, gr. 1-12; papain, gr. 1-3) before meals is an improvement to this treatment.—Ed.

QUERY 4539:—"Croupous Enteritis." My wife has croupous enteritis. Fancy that the sulphocarbolates will be the

Whenever there is much destruction of blood cells, red or white, there is peptonuria or albumosuria.—Croftan.

Bence-Jones albumin differs from albumose in that it is coagulable by heat; look out for bone lesions.—Croftan.

thing but if you can suggest anything, better please do so.

G. J. S., Colorado.

You will find for croupous enteritis, hydrastin, one granule every three hours, with xanthoxilin, three, and chimaphyllin, three, an excellent treatment; two digestive granules (see above for formula) before each meal and one hour subsequent to eating five grains of sulphocarbolates, with a half glass of water. Have your wife flush the colon daily with normal salt solution at body temperature.—Ed.

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QUERY 4540:—"Infantile Dysentery." My baby boy of fifteen months was taken with dysentery about a month ago, with bloody stools, straining, sick stomach, some fever; continued that way for about three weeks. Since then not so much blood—passes blood from three to eight stools in twenty-four hours; fever 99° to 102° F., unconscious, losing flesh (not so much as I have seen, though). I am now giving aromatic syrup of rhubarb, sulphocarbolates, quinine arsenate, saline laxative injections and anointing with goose grease. Help will be gladly appreciated.

J. M. H., Indian Territory.

Give the little fellow a tablespoonful of saline lemonade (a teaspoonful of saline in a glass of water sweetened and flavored with lemon) every three hours, for twenty-four hours. Then every four hours give hydrastin one, collinsonin two and hamamelin one; every two hours a teaspoonful of some demulcent (slippery elm) adding a little bovinine. Feed him with extreme care and we think we would drop the injections, using, however, if anything, one ounce of extract of hamamelis to eight ounces of water.—Ed.

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Methods of testing and microscopic diagnosis are given in Croftan's *Urinology*. It is a very practical book.

Query 4541:—"Eczema." "Pruritis." 1. Woman, 45, married, several children; full blooded. Has eczema, a fine rash appearing principally in flexures of arms and legs, also on lower parts of legs, where veins are enlarged. Disease disappears during winter, reappearing in hot weather. She has consulted several physicians, with little or no relief. I would like, with your help, to make a cure.

2. I also have two cases of pruritis of the scrotal region, which I cannot handle successfully, both of active habit and plain living.

H. G., Minnesota.

1. To the patient with eczema give calomel and iridin, each gr. 1-6, every half hour for four doses every second night, following with a saline laxative in hot water the next morning, two antiscorbutic tablets (calcium iodized, gr. 1-3; phytolaccin, gr. 1-3; stillingin, gr. 1-6; arsenic iodide, gr. 1-67; nuclein, gtt. 4) and of the arsenic sulphide, gr. 1-67 three times daily between meals; also five grains of sulphocarbolates with half glass of water one hour after eating, and the digestive (see preceding page) before meals. Apply to the parts affected the following unguent: ichthyol, one dram; resorcin, one dram, and lanolin, one ounce. It is entirely due to uric acid and retained waste.

2. Pruritis of the scrotum will yield to the same internal medication and the external application of equal parts of carbolic acid crystals, chloral and camphor triturated, together until a fluid results. Cleanse first with warm boric acid solution and then apply cloths damp with the fluid or paint it on with a camel's-hair brush. Any spot which does not yield to this treatment touch with five per cent of nitrate of silver solution.—Ed.

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Do you appreciate the importance of correct interpretation of urinary symptoms? It solves many a problem. Be informed!

QUERY 4542:—"Lupus Erythematosus." I have a case of lupus erythematosus which has been its round and now has fallen into my hands. All the patient asks is that I relieve the burning, smarting pain. The other doctors fail to give relief. Will you kindly advise? The lesion is located near the eye and has gone on the lid, so what I use will have to go in the eye some. I was thinking of using nuclein. I am going to try radium. Can you tell me how to use it?

W. E. A., New Jersey.

Treat this patient by local applications of nuclein, continuously applied, with the purpose of increasing the vitality of the tissues, enabling them to better resist the disease. Since you are so near Philadelphia and New York, go there for the radium application, as you will find experts who can tell you far more about it than we. I would advise a trial of it. The man to see in Philadelphia is Prof. S. G. Dixon, whom you will probably find at the Academy of Natural Sciences.—Ed.

QUERY 4543:—"Cystitis with Nephritis." Patient is forty-two years of age, and his complaint is, as he expresses it, too frequent desire to urinate, especially at night. He sometimes has to void urine as often as six times in a night, and on an average of every two hours during the day. He has been troubled this way for about a year, and has tried such remedies as sanmetto, buchu, etc., without relief. He was examined about a year ago by a physician who said the neck of the bladder is affected, as it is always a slightly painful pressure (a sort of burning sensation) about two inches above the penis, that awakens him; this is not relieved until the urine is passed. Will you please indicate what the trouble is, and suggest its proper treatment?

P. D. G., Missouri.

The examination of the urine shows nephritis with cystitis as a complication.

If there are suddenly-appearing abdominal pains do not forget the possibility of intestinal obstruction.

Cystitis is more evident than the renal disease. Wash out the bladder with boric acid solution and follow with a one to one-thousand ichthyol solution; calcium carbonate, lithium carbonate and colchicine should be given, also arbutin, one grain, and cubebin, two granules, every four hours with a full half pint of barley water; a saline laxative should be taken in half a pint of hot water before breakfast; every third night from six p. m. or after supper euonymin, leptandrin and juglandin, of each gr. 1-6, and blue mass, gr. ½, half-hourly for four doses; hyoscyamine one granule every three or four hours, if necessary to relieve any distress; perhaps one before retiring will prove sufficient.—Ed.

QUERY 4544:—"Albuminuria." I this day send specimen of urine. I want to know what it contains and what you think this indication is. The amount passed in twenty-four hours, fourteen ounces; patient male, 72 years old, for some years has had at times bladder disturbance; at times having to use catheter to relieve the same. Is now having chills, followed by vomiting, then high fever, going up and down quick, from a degree subnormal to 102½° to 103½° F., all in a few hours.

W. T. P., Nebraska.

The report of our pathologist shows high concentration, lack of elimination and a commencing involvement of the kidneys. This is a case, probably, in which prompt elimination and stimulation will turn the tide. Clean out with salines, giving the night prior, calomel, gr. 1-6; podophyllin, gr. 1-6, and leptandrin, gr. 1-6 half-hourly for four doses and with each dose of saline, arbutin one grain, cubebin two granules. Continue these every three hours after the bowels

If with severe abdominal pains there are fever and other constitutional symptoms, examine right iliac fossa for appendicitis.

have acted freely. Give him also a strychnine phos. comp. granule (strych. sulph., gr. 1-100 phosphorus, gr. 1-200; atropine sulph., gr. 1-500; cactin, gr. 1-67), a digestive containing strychnine arsenate, gr. 1-134; quassin, gr. 1-12; papain, gr. 1-3, just before each meal, and the arsenates of iron, quinine and strychnine with nuclein, after eating; dosimetric trinity (aconitine amorph., gr. 1-134; digitalin, Germanic, gr. 1-67; strychnine arsenate, gr. 1-134) one morning, noon and night on an empty stomach, to equalize the circulation.—Ed.

QUERY 4545:—"Post Scarletinal, Paralysis and Albuminuria." R. T., age two years, had a light attack of scarlet fever last winter. About January or February he came under my care. May 28, 1904, I found him anemic; could sleep but little; unable to walk; bowels constipated and urine containing albumin and specific gravity low; skin rough. I gave him calomel, gr. 1-10 to 1-5, each evening and a dose of effervescing salts each morning—put him on calcium sulphide for one month. He gained slowly. Then I put him on nuclein and triple arsenates and wave treatments from static machine. He now walks, but not very well; he is also getting port wine and bovine. The skin is full of a rash, the hands and feet very rough. His urine still contains some albumin, but no sugar; the specific gravity is about 1002, but is scant.

A. M. D., Minnesota.

We would suggest that you give this patient calcium carbonate with lithium and colchicine, and a fourth grain of arbutin with one-half glass of barley water three times a day; a tablet containing strychnine arsenate, gr. 1-134; quinine arsenate, gr. 1-67, iron arsenate, gr. 1-67, and nuclein, gtt. 2. after each meal; every morning a small dose of saline.

Prominent symptoms of acute obstruction: (1) absolute constipation; (2) vomiting; (3) intermittent colicky pain; (4) tympanites.

Also give calomel and iridin, one tablet of each half-hourly for two doses every second or third night before going to bed, feeding him on fruits, vegetables, fish and lean red meats; no fats, pastries or sugar.—Ed.

QUERY 4546:—"Gastric Ulcer?" Man, 50 years old, contractor, hard worker all his life, three months ago had la grippe and it settled in his stomach, which always bothers him. Since then has been able to eat only a few mouthfuls at a time; if he takes over two at once he vomits a lot of mucus. Food of all kinds causes great pain, the only time he is comfortable is when stomach is empty. It takes him an hour to three hours to drink a cup of broth.

E. A. L., Massachusetts.

We would give this man two digestive granules (strychnine arsenate, gr. 1-134; quassin, gr. 1-12; papain, gr. 1-3) before each meal, preceding it a half hour with hyoscyamine one granule, and resorcin three. After meals give five grains of vegetable charcoal and five grains of mixed sulphocarbates with two or three ounces of water. This should be given one hour after eating. Between meals, three times a day, hydrastin, one granule, chimaphyllin, three, and collinsonin, three. Every third night half-hourly for four doses, calomel, podophyllin and juglandin, of each gr. 1-6, and a good saline in hot water before breakfast. This is probably a case of ulcer of the stomach. Better give a test breakfast and examine the stomach washing subsequently.—Ed.

QUERY 4547:—"Cystitis." White male, age 67 years, habits good, and temperate. He has had post-nasal catarrh for twelve years, causing partial deafness. The kidneys are too active at times and when in that condition the urine is very clear

The nearer the obstruction to the stomach the earlier, more prominent and more persistent is the vomiting.

and profuse, otherwise normal in quantity and color; no albumin nor sugar. Three weeks ago he was attacked with severe pain in the region of the left kidney, extending over the point of the hip to left iliac region and left side of scrotum; the attack continued one and one-half hours, leaving the patient very weak and with some fever, which abated in two hours. Since then there has been a feeling as of an urgent desire to urinate, with stinging pain about the neck of the bladder, extending along urethra. Two weeks after first attack there was a return, with symptoms same as in the first, with an added feeling of desire to evacuate bowels. The bowels are normal and regular in action. Fifty years ago this patient says he had gonorrhea of six months' duration. There is no tenderness nor tympanites over region of bladder, but after evacuating same there remains still a desire to do so.

A. G. G., Arkansas.

This would appear to be an acute catarrhal affection, though there are some symptoms of renal calculus. The cystitis, which exists is of a mild form and the interior (neck) part of the bladder probably most affected. You will find that arbutin, gr. one every three hours, with lithium benzoate, gr. 2, will relieve the condition. Every four hours give hyoscyamine one granule. Keep the bowels open with saline and after a week give hydrastin, gr. 1-6, with twenty drops of a good preparation of berberis aquifolium every four hours.—ED.

QUERY 4548:—"Uterine Reflex." My wife has been complaining for years from a pain on the left side of her spinal column near the shoulder; first a small spot, but gradually getting larger. The pain is almost unbearable. She is forty-five years old, has never had any children, and has had more or less uterine trouble for years. For the last four

months she has not been unwell. There is a slight leucorrhœal discharge; she is always free from this except when she has the backaches. The eyes have a very glassy look during spells. She has valvular trouble of the heart. Her appetite is good. She has been taking Waugh's anticonstipation granules for sometime, also intestinal antiseptic tablets, so the bowels are in good order. As a general thing the spells last for a couple of days, then pass off.

J. R. G., California.

The sore spot you speak of on the left side near the shoulder is a reflex uterine pain. You had better have a thorough examination made of the uterus and rectify any trouble which may be found. For the heart we recommend strychnine arsenate, gr. 1-67, and cactin, two granules three times daily, and on general principles a good uterine tonic should be taken internally three times daily; but we are quite sure you will not have satisfactory results until you locate the uterine difficulty and correct it.—ED.

QUERY 4549:—"Membranous Enteritis." "Mania." Please give me advice on the following two cases:

1. Woman, 25, has ulcer of stomach and bowels, passes pieces of membrane, sometimes a cast of the small intestine two inches long comes away. There is blood in the stools, and stomach and bowels are very tender. I have given bismuth subnitrate and subgallate and soda, antiseptics, hydrastin, berberine, and in fact most everything at different times; all seem to help for a time, and then fail. I have her at present on conduragin, six granules a day in hot water and liquid diet.

2. Girl, 17 years old, first year in college, very smart—ranks among the first. One very hot day last June she climbed a mountain, together with other girls. Two girls were prostrated with the heat;

Sooner or later the vomitus becomes fecal; the lower the obstruction in the intestinal tract, the more marked the fecal character.

The pains attending acute intestinal obstruction are caused by and associated with increased peristalsis.

she was not, but began to act queerly soon afterwards, and about two weeks afterward she was taken home, and I have attended her since. She says she has committed a great crime for which she will never be forgiven (says she left her room dirty—that is the crime). Wants to kill someone; says she will kill herself; but when I left some medicine I told her would kill her if she took too much—she wouldn't touch it. When first she came home she would tear her clothes off, also her mother's; would strike her mother or any one who opposed her. Wanted to talk of her "crime" all the time, etc. I have kept her on hyoscyamine and cicutine hydrobromate to effect, the former about every four hours and the latter one granule every hour or two hours; kept her pretty quiet. Somnos was given to make her sleep; lately I have added gelsemin with good effect. She is getting better, but very slowly. At first she had to be watched and held most of the time, but now they trust her alone part of the time. When company is present she acts naturally, and they know nothing of her trouble. She does not complain of any trouble with her head or body, except once she told her mother her head felt as though it were in a vice. Her grandfather, at the age of 76, was taken similar to this and killed himself; no other case in the family. Please give diagnosis, prognosis and treatment.

E. A. L., Massachusetts.

1. This woman has membranous enteritis. We think you will get good results from hydrastin, gr. 1-6 every three hours, with two digestive tablets before meals and five grains of the mixed sulphocarbolates one hour after meals, together with chimaphyllin, three granules; hamamelin, two, and collinsonin, one, between meals three times daily. Give her a nutritious diet and have the bowels washed out with normal saline solution, at least once daily.

The pain is colicky in type; it is not an inflammatory pain, but is relieved by diffuse pressure.

2. The girl will respond to scutellarin and avenin in full doses. It is a case of mild mania (hysterical) and we suggest that you give six scutellarin and six avenin granules in hot water morning, noon and night and at the same time give fairly full doses of sodium bromide, three times a day. You might add hyoscine hydrobromate one granule to this treatment. Give it only when there seems to be an exacerbation. Keep the bowels open with the saline laxative in hot water before breakfast and after each meal give five grains of sulphocarbolates, also with water, also a good digestive tablet before meals.—Ed.

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QUERY 4550:—"Cerebral Syphilis."

Man 35, always been in good health. Four years ago he contracted syphilis and has been under my care for the past three years, in which time he has had a systematic course of mercury and is still keeping up the iodide to toleration. I am also giving a pill of protoiodide three times daily now. He developed a severe headache two months ago and has been gradually getting worse. I have given him every form of headache and migraine powder without result. Urine is 1026, acid, no albumin or sugar, and urea is all right. He is getting drowsy and dull, can lie down anywhere and go to sleep, and on waking has an awful headache. It is not localized but shifts from occiput to temporal regions.

B. E. R., North Dakota.

The headache you speak of would lead us to fear gumma of the brain. We would suggest that you, first of all, clean out this man's system thoroughly by the following treatment: Give two or three active cathartic tablets, on going to bed, and a saline laxative in a glass of water before breakfast the next morning. Xanthoxylin three granules, scutellarin

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Tympanites is common to intestinal obstruction and peritonitis; in the latter there is always muscular rigidity.

three and cypripedin three, should be taken every three hours with calcium iodized, one tablet, and some good digestive tonic before meals and strychnine and phosphorus comp. (strych. sulph., gr. 1-100; phosphorus, gr. 1-200; atropine sulph., gr. 1-500; cactin, gr. 1-67) after eating. Continue this treatment for one week and then substitute therefor the antisyphilitic tablet (mercury protoiodide, gr. 1-3; stillingin, gr. 1-3; strychnine arsenate, gr. 1-67; iron arsenate, gr. 1-34; quinine arsenate, gr. 1-34; nuclein, gtt. 2) two four times daily. Continue the digestive before meals and the saline before breakfast. We think the headache will yield to this. If it does not, inform us and we will try to suggest further treatment.—Ed.

QUERY 4551:—"Quinine Arsenate." "Bismuth Subnitrate." 1. How many granules of quinine arsenate grain 1-6, equal one grain of quinine sulphate? How much arsenic does the above granule contain?

2. I fail to see what medicinal value bismuth subnitrate in granules of grain 1-6 can have.

S. J. S., Tennessee.

1. Seven granules of quinine arsenate (approximately) equal one grain of quinine sulphate; but 1-6 grain of quinine arsenate contains 1-40 grain of arsenic.

2. Bismuth subnitrate in gr. 1-6 is not of special value in doses of one granule, but in $\frac{1}{2}$ to one grain you will find it of marked efficacy, especially in the diseases of children, and an infant can swallow three or six granules much better than one can a half grain or grain pill or tablet.—Ed.

In obstruction, pain is intermittent and referred to bowel above obstruction; in peritonitis it is constant and referred to inflamed part.

QUERY 4552:—"Slow Development." Have a little patient, male, aged twenty months, one of twins. They were very poorly developed at birth, and one died the third day. This one has never been hearty and developed very slowly, has always been troubled with nasal and bronchial catarrh. The last two months he has had a diarrhea, not at any time severe, but there is very poor digestion. Have had it on alkaloidal treatment for diarrhea and indigestion and calcium iodized for the catarrh, and it seems to remain about the same for past three weeks, no improvement. It has never walked, crawled or talked. It is well formed but just don't grow. Now the question: Will lecithin help this child, or would nuclein be better?

W. J. S., Kentucky.

We would certainly put this child upon nuclein and give 1-67 grain of hydrastin (in solution) three times daily. Give one tablet of nuclein on the tongue, morning, noon and night and about the same time (but not within thirty minutes) give a tablet of hydrastin, calcium lactophosphate one granule, four times daily with the food, and bovine three times daily. Under this treatment, with proper feeding and plenty of fresh air the child should rapidly recover.—Ed.

QUERY 4553:—"Oxaluria." Now, kindly explain to me, some Sunday before church-time, if no other time is available, why we see so much all the time in all of our magazines and books about the uric acid diathesis, and why seldom, if anything, about the oxalic acid diathesis? I find two or three patients that have oxaluria, more or less, to one that has any uric-acid trouble. I make an analysis of every patient's urine, no matter who or what the ailment. Suppose you switch off and give us a little oxaluria literature for a change. No hurry, take your time. I will see it if it is in the CLINIC. I get every copy and read it nights and Sun-

Tenderness is absent or not well marked in obstruction; in peritonitis there is exquisite tenderness over the inflamed area.

days, when wife is asleep or in church. Don't leave the "or" out or she will make me trouble.

E. P., New York.

Oxaluria is not infrequent. I have found that a few drops of nitric acid before meals puts a stop to it. Let us know your experience. Other members of the family please "speak up."—Ed.

QUERY 4554:—"Phosphaturia." Man, married, age 34, merchant, previous health good, family history good. Urine very low, specific gravity, from 1002 to 1014, according to amount of water taken. Solids eliminated in twenty-four hours 500 to 600 grains; should be 1150 grains, per table of Dr. Abbott for this weight. Urine always loaded with earthy phosphates. No albumin, no casts, no cardiac dilatation. Has cardiac hypertrophy, caused by excessive use of tobacco, which was discontinued several years ago. Intense frontal headache every few days, lasting twelve to thirty-six hours. Deep lumbar pains continually, made worse by excessive physical exercise or mental worry. Very little dyspnea. Pulse regular though heart is hypertrophied, compensation good. No gastric disturbance. Circulation good. No loss of weight. Above condition has existed for three or four months. How would static electricity do in this case?

M. W. C., Missouri.

Give a granule of veratrine, gr. 1-134, before meals and at bedtime, in a full glass of water, to increase elimination. Urotropin has proved of value, for the excessive discharge of phosphates. The action of veratrine on the heart should be carefully noted. It may be necessary to combine with it a few granules of cactin or sparteine. This, with the proper regulation of the bowels, diet and exercise, are all the recommendations I feel free to make.—Ed.

QUERY 4555:—"Eczema." Male, age 45, strong and healthy, no childhood sickness, except measles, several years ago eczema set in on the inside of the leg, a spot about three inches in diameter. Lately a spot about one inch in diameter has appeared on the occipitoparietal suture (right). On the night of July 15 this patient was seized with a rapid rise of temperature and consequent intense itching. He complained of the eczema "going all through his body, it was inside and outside;" also he suffered pain about the epigastric region. He rose to go to the toilet, but fainted. About an hour later a cramp in the stomach was felt.

What I want to know is, is it possible that this eczema influenced the blood circulation in the brain, and does eczema on the head affect the brain?

H. H. G., California.

Eczema is probably an indication of deficient elimination. The cause of the seizure is not indicated by the account. I have seen a similar attack occur from eating a pie made from a rotten apple. Eczema and the attack are not necessarily connected.—Ed.

QUERY 4556:—"Prolapsus Uteri." I have a couple of cases of prolapsus uteri, the cervix presenting at the vulvar cleft. One has an old laceration and refuses operation. I have tried numerous "tonics" and have found none on which I could rely. Would consider it a favor if you would outline treatment.

L. V. S., Kansas.

Replace the uterus and give a good uterine tonic, one hydrastin granule and one or two strychnine arsenate granules, three times a day, taking the proper steps to keep the organ in place during treatment.—Ed.

QUERY 4557:—"Gastric Ulcer?" Male, 21 years; lymphatic temperament; grew

Causes of acute obstruction of bowel: (1) Constriction or strangulation; (2) volvulus of colon; and (3) acute intussusception.

Acute obstruction may be caused by the pressure of tumors—ovarian, uterine and omental—or by pelvic and cecal abscesses.

up "a good boy," without playful habits—loved his books, moved slow, talked slow. He was taken last April with an aching and burning pain in the stomach after meals—pain shifting to side and extending upward over the chest. Lately he has had sinking spells, requiring fanning and face wetting; he is anemic, weak, suffers from anorexia, passes water with an effort and with delay in starting. No pain before or after voiding—touching suddenly his bowel anywhere causes a nervous jump of considerable strength. Firm pressure is borne without pain. Pains come on generally after eating, and last sometimes two hours if not relieved by some anodyne; bowels slowish, and this aggravates the pain some. This pain starting in the region of the stomach, is not localized there, but goes to chest, arms, etc. What is it, and what is best to do for it? He has some fever now and then, but it runs low, and generally, always I might say, worse when the pains are most frequent.

J. W. S., North Carolina.

We fear that you have an ulcer of the stomach walls. There may have been internal hemorrhages which have caused anemia and nervous disturbances. Better send a sample of urine for analysis. Give a Boas test breakfast, wash out the stomach and examine for pus and shreds. We recommend that you give this boy a digestive tonic before meals, and two granules of the triple arsenates with nuclein (strychnine arsenate, gr. 1-132; quinine arsenate, gr. 1-67; iron arsenate, gr. 1-67, and nuclein, gtt. 2) after meals; silver oxide one and hydrastin one at the mid-hour between meals, with a saline laxative, a teaspoonful in a glass of hot water before breakfast. The examination of the urine of this case might change this treatment somewhat, but we believe that it will prove effective.—Ed.



If the patient has had peritonitis, general or local, appendicitis, hernia, pyosalpinx, or gall-passage trouble, look out for adhesions.

QUERY 4558:—"Dropsy." I am tapping a man for dropsy, who, previous to this condition, had chills off and on for seven years. He could break the chills with quinine and chill tonics, but they would return. He tried several doctors and they all succeeded in breaking them for a while, but they would return. He has had no chills for some time, but is dropsical. When I first saw him, to tap him, his feet and legs were very dropsical, also the scrotum and penis, and his right leg much more so than left. He was taking Green's "Dropsy Cure" and has been all along, but he is about to give it up, it makes him sick. I had to tap him every week at first. He is up most of the time and has a good appetite. If you can suggest anything, will be pleased to try it. His legs and feet and scrotum do not swell nearly so much as they did.

W. T. H., Indiana.

You fail to tell us whether the disease is due to hepatic or cardiac derangement. We judge, however, that it is hepatic. An excellent treatment would be calomel, gr. 1-6, podophyllin, gr. 1-6, leptandrin, gr. 1-6, half-hourly for six doses every third night, following the next morning before breakfast with a dram of sodium phosphate in a glass of hot water. Every two hours for twenty-four, take apocynin, one tablet. With every other dose give cactin, one granule, chimaphyllin, three. Before each meal let him take two digestive tablets (see p. 1215), and after eating, chionanthin, six, xanthoxylin, four, and morning, noon and night, on an empty stomach, two dosimetric trinity (aconitine amorph., gr. 1-134; digitalin, Germanic, gr. 1-67; strychnine arsenate, gr. 1-134). It may be necessary, however, Doctor, to start this treatment with free doses of elaterin, giving sufficient to produce large, watery stools.—Ed.

Of course you will never fail to examine the hernial canals; remember, also, there may be internal strangulation.

QUERY 4559:—"Cardiac Dilatation." My heart is troubling me a good deal. I have doctored with different doctors and only got temporary relief. Would like to know if you can't do something for me. I will explain my case to you as well as I can. The doctors I have seen call it dilatation and hardening of the arteries. My breathing is very difficult; at times I can hardly get my breath, and I have such very tired feelings; especially in my legs. Am never free from that tired feeling. There is also a bubbling sensation from the region of the heart downward. I will tell you as near as I can the treatment I have had. I have taken medicine in tablet form, composed of nitroglycerin, tincture strophanthus, tincture of digitalis, tincture of belladonna leaves, besides other medicine in liquid form which I do not know, with the above result. I am not able to do any work, only of the lightest kind, and very little of that. The doctors tell me my heart is enlarged and there is a leakage.

E. E., South Dakota.

We would put this man upon cactin, two granules, strychnine arsenate, gr. 1-67, every three hours, two good digestive tonics (strychnine arsenate, gr. 1-134; quassin, gr. 1-12; papain, gr. 1-3) before meals, papayotin, six granules, and vegetable charcoal five grains after meals; aspidospermine, one granule, arsenic iodide, one, three times a day. Every second night, half-hourly, from 6 p. m., for six doses, let him take calomel, gr. 1-6; podophyllin, gr. 1-6, and leptandrin, gr. 1-6, and resorcin two granules, following the next morning with a heaping teaspoonful of a saline in a glass of water—hot preferably. Put the man on light diet, use suggestion to the fullest extent, making him realize that you can cure him, and that he will rapidly improve under treatment, and we think you will control the case in a few weeks

Send sample of his urine for analysis and give some description, if possible, of the heart sounds, when you report again.—Ed.

QUERY 4560:—"Cardiac Palpitation." Male, about thirty-eight years, physician, single, has been, up to six or eight months ago, a heavy smoker, for about eight years; drank moderately for about four years, and always heavy coffee drinker to the beginning of present illness. He enjoyed good health up to two months ago. He has always had one weakness—sexual excess. The present condition dates from July 18. The symptom that attracts most attention and keeps him worried is the heart, a heavy beating at all times, felt best in heart by lying on stomach and putting hand under it. It is felt at all times, though it seems to be a general hard impulse, or rather high arterial tension felt elsewhere, as much as in the heart. He thinks sometimes that he impaired it on the first of June. At that time he had occasion to exert himself more than usual in whipping his horse for running away. He felt no very bad effects first, then only such as would come from a good deal of exertion. It was a month before this trouble of the heart set up. It first attracted his attention in the morning before rising, on account of the abdominal pulsation for a while. The more he noticed it, the more alarmed he became. He was at that time doing a great deal of mental work, and also had some trouble on his mind over which he was brooding. This heart palpitation got worse, the more he thought of it. There seems to be no organic disease of the heart. The pulse is from seventy to seventy-two, but will become accelerated if there is much exertion, especially in morning. He is more nervous and despondent in the morning than evening.

C. A. G., Texas.

Volvulus consists in twists or knots in the intestine; it is generally seated in the region of the sigmoid flexure.

Invagination or intussusception is a not infrequent cause of acute obstruction of the bowel.

This might be described as a case of cardiac neurasthenia and is probably not organic, but due to nervous causes—faulty habits and worry. The remedy you need for this case is *veratrine*, taken carefully, judiciously and strictly “dose for effect;” beginning with one granule an hour before each meal, dissolved in half a glass or a glass of water, and increasing the dose until heart-action is normal or slight diarrhea results. In addition take a full morning dose of saline laxative. The diet should be very carefully arranged, excluding alcohol, tobacco and all the caffeine-bearing drinks. Instead of this let the drink be oatmeal gruel, taken hot, but not more than a pint at each meal. If preferred he can use raw oatmeal stirred into cold water. But evidently, however, he should have a rest, and our earnest advice would be for him to come to Chicago and either take a month in post-graduate work or in some recreation. We judge that the condition is not yet beyond reach of cure. It is a question largely depending on his obedience to these instructions. The writer had one case of organic heart-disease which had existed thirty-three years, during which time the patient did all the work of a country doctor. The sleep will be soon regulated by the *veratrine*.—Ed.

QUERY 4561:—“Chiropraxy.” Is there a work published on chiropraxy, or affections of the foot? Where can you purchase chiropraxist’s instruments? There are none advertised in the catalogues of instrument makers.

J. W. M., Pennsylvania.

I know of no book which gives a valuable account of the affections of the foot. Those in our library speak only of the varieties of clubfoot. A work on the

chiropraxist’s art is badly needed, and would be a valuable addition to every physician’s library. An afternoon spent in the office of any competent chiropraxist would take the conceit out of any professor of orthopedics in America.—Ed.

QUERY 4562:—“Sciatica.” What is the latest treatment for sciatica? I have a chronic case I have been treating since last spring.

E. W. S., West Virginia.

This disease, as you know, Doctor, is one of the most stubborn with which we have to deal, in some cases resisting all medication, in others yielding promptly to thorough eliminative and antirheumatic treatment, but when inflammatory conditions have been prolonged and severe and changes have taken place in the nerve itself, stretching and division are about the only really useful methods. However, much can be done in some cases by giving eliminatives—*colchicine*, *bryonin* and *macrotin* and applying to the course of the nerve and over the sciatic notch *guaiacol*, rubbing it in thoroughly and applying hot flannels subsequently. The writer has had success in some severe cases with chloride of ethyl, spraying the painful area for two or three minutes twice daily, giving in ordinary cases *calomel*, *podophyllin* and *leptandrin*, 1-6 grain of each half-hourly for six doses every third night, a saline every other morning in hot water, and *colchicine*, *macrotin* and *bryonin* one granule each every three hours.—Ed.

QUERY 4563:—“Rheumatism.” I have a man here suffering from acute rheumatic arthritis; his hands, shoulders and knees are swollen and hot, particularly hot and painful at times. His tempera-

Gradually occurring obstruction may be due to the healing of ulcers; inquire into history of specific disease.

Chronic obstruction in the largest percentage of cases is undoubtedly due to carcinoma; make rectal examination.

ture then rises to 100° or 101° F., and he is then very restless and miserable. It occurs to me that a few tablets of aconitine might help.

G. H. L., Indiana.

You can give a granule of aconitine in solution every ten minutes until the temperature falls below one hundred, or the pulse below ninety. You would find a saline with colchicine admirably suited to this case, clearing the bowels, stopping fermentation, and preparing the way for other remedies. I have personally gotten in the way of using this on rising, a dose sufficient to empty the bowels. Then give the salicylate of lithia or of quinine in the dose of one-sixth of a grain. In very acute cases repeat every five minutes, in others less frequently, the object being to prevent fermentation by having a trace of the remedy always present in the stomach. It is wonderful how little of the drug will do the work when thus employed. It has been repeatedly observed, however, that when the defervescent alkaloids are employed much smaller doses of the salicylates are necessary, as ordinarily a large proportion of the dose is used up in combating fever. When this is done by aconitine and veratrine, less salicylate is necessary for its specific work.—Ed.

QUERY 4564:—"Hemiplegia." Have you any suggestions to make on the subject of hemiplegia following apoplexy? I have used all the regular treatment and followed out any amount of suggestions without results.

J. F. L., Georgia.

There is nothing very new on this subject. Absorption of the clot is the main thing, and we have found that arsenic iodide (one granule after each meal, increasing the dose if necessary to

two) and calcium iodized, one tablet, with nuclein, in full doses and two granules of the "trinity" morning, noon and night, is about the best routine treatment. Keep the bowels open, of course, and skin active. After a little while the strychnine and phosphorus comp. granule (strych. sulph., gr. 1-100; phosphorus, gr. 1-200; atropine sulph., gr. 1-500; cactin, gr. 1-67) will be called for. We have had some remarkable results follow the use of small doses of atropine after a month or so of the above treatment. We cannot quite explain the action in this case, but it seems as though the flushing of the capillaries sweeps away obstructions.

We regret extremely that we have no further or recent information to give you, but hemiplegia following apoplexy has always been and we fear always will be one of those annoying conditions which baffles us in nine cases out of twelve.—Ed.

QUERY 4565:—"Convulsions." The patient, girl baby age four months. The child began having "drawing spells" the mother says when only three weeks old, which continued to grow a little harder and oftener until they now take the form of convulsions. At first they would only come on when the child was sleeping; usually when it would first get to sleep they would come on, but now they come when it is awake as well as when asleep. It seemed to be perfectly well at first, when there was no spell on it. They come usually one or two every hour, sometimes oftener and sometimes it will miss for three hours. Temperature is normal, bowels don't act much without a laxative. I have given sedatives and cathartics and they have no effect on the convulsions. I thought it might be caused from the sphincter muscles, but I dilated them to some extent by introduc-



If with gradually-increasing constipation there has been progressive loss of weight, there is a strong probability of cancer.

Intestinal carcinoma more frequently attacks the rectum and sigmoid; remember the importance of early diagnosis.

ing finger into anus and opened vagina, but nothing seemed to help in the least. Kidneys act freely enough. It nurses freely but seems to be getting weaker each day. Parents are both healthy, except the mother, who has had uterine trouble, such as prolapse and ulceration. No convulsions among kindred except one aunt had a few before death, and died with one on her. Now what do you think could be the cause of all this, and what treatment would you suggest? The child's feet seem to draw and cramp worse when it has the spells, than its hands do.

R. L. B., Tennessee.

It is a decidedly difficult problem to decide without examination what causes the convulsive seizures in this case. Have you examined fontanelles and spine carefully? It is possible that the trouble is due to gastrointestinal irritation and a change of food may be of benefit. If worms, nasal stenosis and traumatism can be excluded, and there is a proper elimination of urinary solids, you must look for the origin of the difficulty, either in the stomach, brain or intestinal tract. The history does not indicate brain disease. Are the pupils equally dilated and responsive to light? Look up the urine and change the food to some very easily digested substance—predigested cereal gruel, with a little cream and a few drops of fresh beef juice, every two or three hours. Wash out the bowel and give cicutine (one granule dissolved in six teaspoonfuls of hot water) half a teaspoonful, scutellarin one and cypripedin one granule each every three hours. If there seems to be spinal tenderness apply a small blister at base of skull and note results. We wish we could help you further, but it is impossible to speak with assurance upon the facts before us.—Ed.

Read carefully the article by Dr. Bayard Holmes in this number of the CLINIC; it will help to early diagnosis.

QUERY 4566:—"Tape-Worm Remedy Safe." If a person was to take the tape-worm medicine and had no tape-worm, would it do harm? There is a woman here that I *think* may have a tape-worm, but I am in doubt about her case. Please give me your opinion. She is troubled with running off of bowels about once a month and is very nervous. All the medicine she has taken does not stop the misery and she cramps and is in great pain.

J. S., Kansas.

It would do no harm if a person minus a tapeworm were to take the tape-worm remedy. Unless, however, you are able to find joints of the worm in the stools you may be pretty positive that there is no tapeworm present. It is quite probable that you have a case of catarrhal enteritis. It is very rare that tapeworm causes diarrhea and cramps. I suggest cleaning out, in this case, with calomel and podophyllin in small doses, followed by the exhibition of strychnine, atropine and some astringent such as hydrastin, together with sulphocarbolates, five grains every three hours, with half a glass of hot water.—Ed.

QUERY 4567:—"Calcium Sulphide Dosage." Under head of "miscellaneous articles," page 598, September CLINIC, you reply in regard to calcium sulphide in gonorrheal rheumatism. "Give to saturation." Please explain.

D. H. H., Texas.

Gr. 1-6 hourly or half-hourly for twenty-four hours, and then every two hours for another twenty-four will generally result "in saturating" the patient. However, no matter how the drug is given when the patient's breath smells like ancient eggs and he tastes still older eggs from time to time you may consider that he is "saturated with calcium

Of course the most common cause of intestinal obstruction is persistent and long-continued constipation; "clean 'em out."

sulphide." Then give enough to keep up the effect, say 1-6 of a grain every two hours while awake.—Ed.

QUERY 4568:—"Prostatic Disease." "Ulcer." I have two cases I would like some light on as to treatment.

1. Male, aged 68, has had several attacks of rheumatism and been to sanitarium for two months and greatly benefited, but as his rheumatic pains left him he was taken with great pain on urination and on examination the doctors found an enlarged prostate, which they considered malignant. Two weeks ago I was called in consultation and elicited a history of slightly painful urination back three months and difficult urination back a year and a half, but it had not bothered him as much as his rheumatism had, so he had not complained of it. He is very nervous, much emaciated, eats almost nothing at all. Sleeps two or three hours in twenty-four, cannot rise to his feet from sitting, being so weak. Pulse 108, temperature ranging from 97° to 101° F. Bowel passages and straining at stool cause excruciating pain. The urine must be drawn and the procedure is very painful. Rectal examination showed a tumor in the prostatic area, somewhat larger on the left than right, about the size of a butternut. It was not very tender to pressure, was immovable, and firm and denser in some parts than others. At the sanitarium his hemoglobin was given as 40 per cent. I estimated it with the Tallquist scale at 75 per cent (three weeks after). His urine was examined and found clear, quite acid, amber, slight sediment of white blood cells, squamous cells, but no evidences of cancer cells. No sugar, no albumin. Yesterday—nearly two weeks after I saw him first, patient seemed to have less pain, and was some brighter, his temperature was normal and had been for some time. The nervousness and lack of appetite were the same. Pulse was 116, full, but not strong, and the at-

tending physician told me the day before it had been very weak. During the trouble no blood has been passed in the urine. The bowels have been thoroughly cleansed and are kept so. He is receiving sanmetto for the bladder and prostate and pepto-mangan and liquid peptonoids for his appetite and nourishment. Can you give me any light and help on the subject?

2. Female, aged 60. Prevailing trouble a large ulcer on the front of the leg three and one-half inches above the ankle-joint. Treated for eight years with no benefit and operated for necrosed bone twice, but none found. Area about ulcer is painful, red and swollen, and at times smarts and burns severely. It is two inches long by two and one-half inches wide and extends down to the bone. A bloody serum discharges, saturating a light dressing and bandages two times a day. Two years ago the patient weighed 145 pounds, a year ago 125 pounds. Last spring she had typhoid fever and was reduced very much. She now weighs 103 pounds. She has had several doctors and as many and more different treatments. She now applies ung. zinc oxid to the ulcer, as it is the most soothing she has found. I have put her on triple arsenates and nuclein for its reconstructive effects and wish to try aluin also. Again, can you suggest anything else?

W. H. V., Michigan.

1. There is evidently severe prostatic involvement. You will find barosmin, four granules, cubebin, one, and barley water, eight ounces, every three hours, will alleviate the condition. Apply per rectum a capsule of euarol, adding a little ext. hyoscyamine. Hydrastin, one granule, every four hours (for its tonic influence) with three drops of specific tincture of thuja and saline, a teaspoonful in a glass of *hot* water before breakfast. Some blood food freely and two triple

Fecal accumulations are probably far more common than usually recognized; may be enormous without causing complete stoppage.

Be sure that you are dealing with fecal obstruction before giving cathartics in these cases; and be careful even then.

